



OptoSupply

2009

LED

RoHS Compliant



- Through-Hole LED
- SMD LED
- Super Flux LED
- High Power LED



**OPTOELECTRONICS
PRODUCTS**

About OptoSupply

We are a Hong Kong based LED manufacturer with our headquarter in Hong Kong and wholly owned factory located in Shenzhen of China. Owning the advance automatic machines and professional engineers. We strive to serve our worldwide customers with the full range of LED models at the most reasonable price vs. the highest brightness and the best quality and customer service.



Optosupply Longgang R.&D. Office

Main Products:

Full range LED Lamps including Ultra-violet (UV) LED, White LED, Infrared (IR) Emitting Diode.

OEM (original equipment manufacturing) Product and ODM (original design manufacturing) Product.



LED Lamp Production

Achievement:

- Founded in 2001 in Hong Kong
- All factories awarded ISO9001:2000 accreditation since 2003
- Expanded LED lamp production capacity to 2KK per day since 2004
- Moved factory to Long Gang since November 2004
- Expanded manufacturing floor space to 5,000 square meter in 2004

Manufactory Technology

Through continuous research and development, **OptoSupply** pioneer applications for LEDs that create new value for our customers. The Group's dedicated R & D team is committed to developing innovative new applications for LED components. As **OptoSupply** engineers explore the immense untapped potential of LED technology, one of the Group's top priorities is to create new applications to make our customers' dreams become reality.

To achieve its goals, our R & D team focuses on three directions, namely materials, process and optics innovation. We strive to improve LED performance by deploying non-imaging optics technique, including ray tracing and LED light source optical modeling.

From deploying vertical integration to ensuring flexibility and speed, **OptoSupply** manufacturing facilities are engineered to meet the diverse needs of our customers and OEM partners worldwide.



LED Lamp Assembly

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Foursquare

Rectangular

Round

SMD

Super Flux

Straw

Oval

Flat

Concave

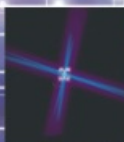
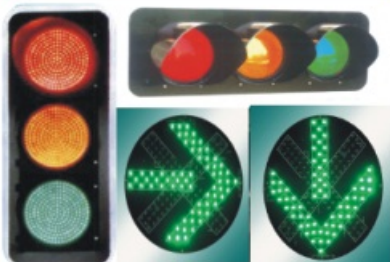
Bullet

Examples of Applications

Full Color Display



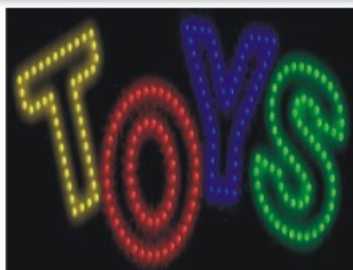
Signal



Christmas Lighting



LED Toys



LED Backlight



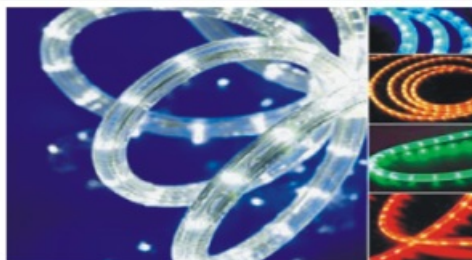
LED Keychain



LED Light Bar

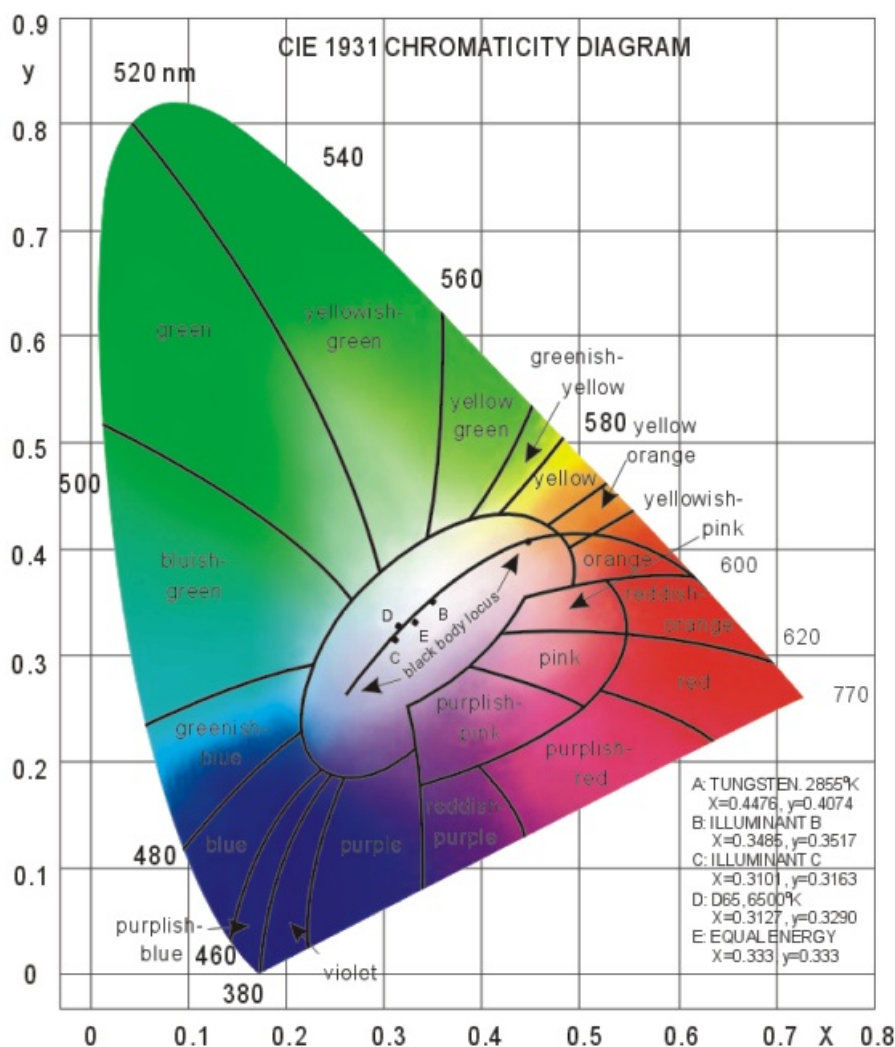


LED Decoration

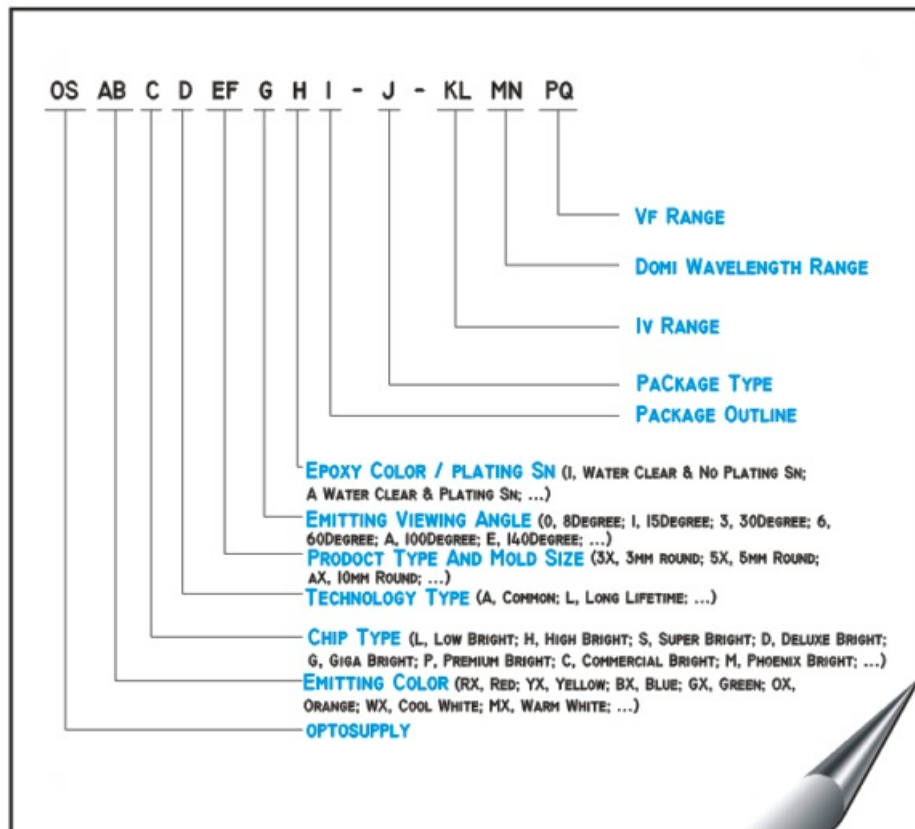


Chromaticity Diagram

***This data shows typical values.**



Part Number Formation:



Intensity Standard

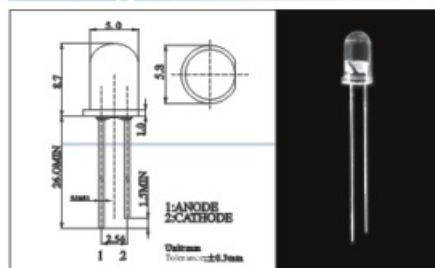
BIN	Range(mcd)	BIN	Range(mcd)
B	20-30	N	2180-3000
C	30-45	O	3000-4200
D	45-68	P	4200-5800
E	68-100	Q	5800-7000
F	100-150	R	7000-8400
G	150-220	S	8400-10000
H	220-330	T	10000-12000
I	330-500	U	12000-14400
J	500-750	V	14400-18000
K	750-1120	W	18000-22000
L	1120-1560	Y	22000-25000
M	1560-2180	Z	25000-30000

Forward Voltage

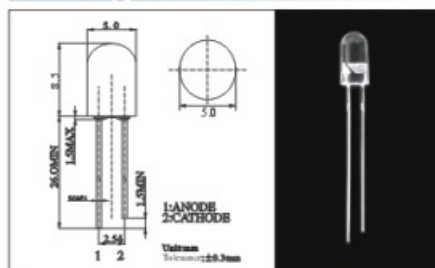
BIN	Range(V)	BIN	Range(V)
1	-1.6	A	3.2-3.4
2	1.6-1.8	B	3.4-3.6
3	1.8-2.0	C	3.6-3.8
4	2.0-2.2	D	3.8-4.0
5	2.2-2.4	E	4.0-4.2
6	2.4-2.6	F	4.2-4.4
7	2.6-2.8	G	4.4-4.6
8	2.8-3.0	H	4.6-4.8
9	3.0-3.2	I	4.8-5.0

Package Outlines

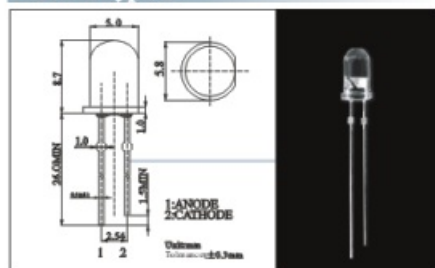
Φ5mm Type A



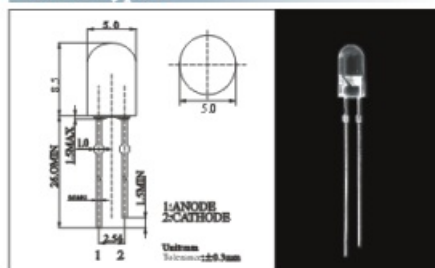
Φ5mm Type B



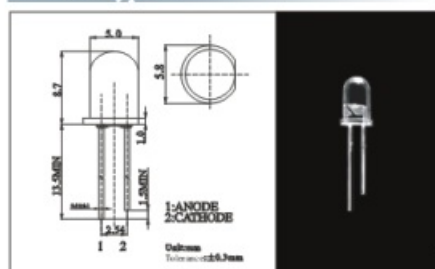
Φ5mm Type C



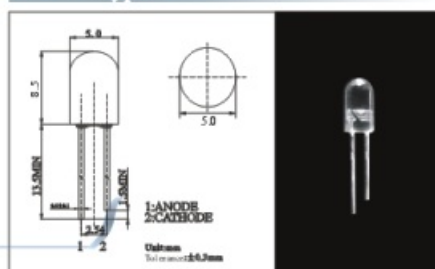
Φ5mm Type D



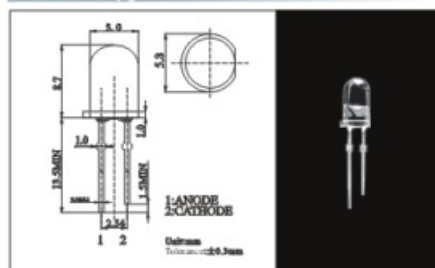
Φ5mm Type E



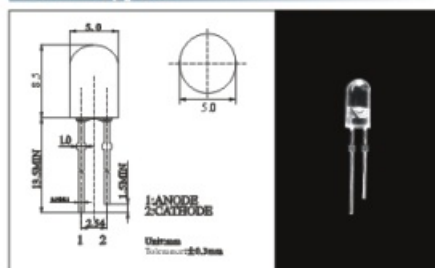
Φ5mm Type F



Φ5mm Type G



Φ5mm Type H

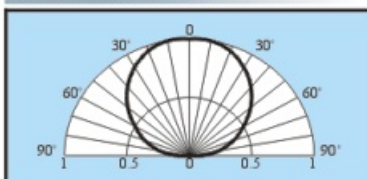


Tops 3 Power LED Series

Characters

- Viewing angle 120 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y	
DC Forward Current	I _F	800	800	mA
Pulse Forward Current	I _{PF}	1000*1	1000*1	mA
Reverse Voltage	V _R	5	5	V
Power Dissipation	P _D	3200	2400	mW
Operating Temperature	T _{opr}	-30~+85	-30~+85	°C
Storage Temperature	T _{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Color Temperature CCT(K)*4		Luminous Intensity (lm)*3		Reverse Current IR (μ A)
			Working Current:IF=700mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSW4XAT3CIE	Pure White	Water Clear	3.3	4.0	6500	10000	130	180	<10
OSM5XAT3CIE	Warm White	Water Clear	3.3	4.0	3000	4000	90	120	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd (nm)*5		Luminous Intensity (lm)*3		Reverse Current IR (μA)
			Working Current:IF=700mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSB5XAT3CIE	Blue	Water Clear	3.3	4.0	470	475	24	32	<10
OSG3XAT3CIE	Cyan	Water Clear	3.3	4.0	505	510	130	180	<10
OSO5XAT3CIE	Pure Green	Water Clear	3.3	4.0	525	535	130	180	<10
OSY5XAT3CIE	Amber	Water Clear	2.5	3.0	590	600	90	120	<10
OSR5XAT3CIE	Red	Water Clear	2.5	3.0	624	629	90	120	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

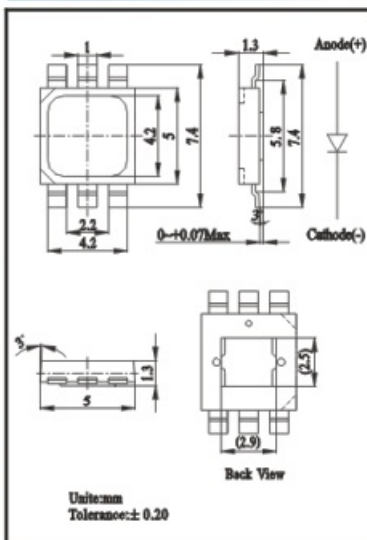
*4 Color Temperature Tolerance is ±500K

*5 Devices are sorted by 5nm wavelength ranges

Note: Do not drive at rated current more than 3 S without heatsink for Tops 3 LED series.

Package Outlines

(Unit:mm)

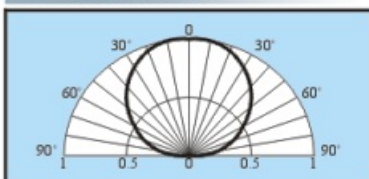


Tops 1 Power LED Series

Characters

- Viewing angle 120 deg

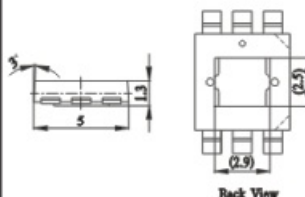
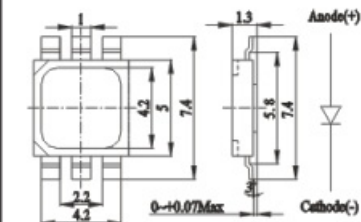
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Unit:mm
Tolerance:± 0.20

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y	
DC Forward Current	IF	400	400	mA
Pulse Forward Current	IFP	500*1	500*1	mA
Reverse Voltage	VR	5	5	V
Power Dissipation	PD	1600	1200	mW
Operating Temperature	Topr	-30~+85	-30~+85	°C
Storage Temperature	Tstg	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Color Temperature CCT(K)*4		Luminous Intensity (lm)*3		Reverse Current IR (μ A)
			Working Current:IF=350mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSW4XAT1C1E	Pure White	Water Clear	3.3	4.0	6500	10000	70	100	<10
OSM5XAT1C1E	Warm White	Water Clear	3.3	4.0	3000	4000	50	70	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd (nm)*5		Luminous Intensity (lm)*3		Reverse Current IR (μ A)
			Working Current:IF=350mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSBSXAT1C1E	Blue	Water Clear	3.3	4.0	470	475	12	17	<10
OSGBXAT1C1E	Cyan	Water Clear	3.3	4.0	505	510	70	100	<10
OSGSXAT1C1E	Pure Green	Water Clear	3.3	4.0	525	535	70	100	<10
OSYSXAT1C1E	Amber	Water Clear	2.5	3.0	590	600	50	70	<10
OSRSXAT1C1E	Red	Water Clear	2.5	3.0	624	629	50	70	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Color Temperature Tolerance is ±500K

*5 Devices are sorted by 5nm wavelength ranges

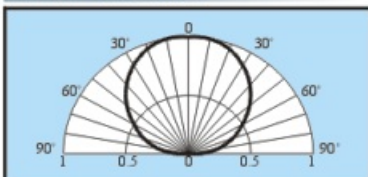
Note: Do not drive at rated current more than 3 S without heatsink for Tops 1 LED series.

Tops H Power LED Series

Characters

- Viewing angle 120 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y	
DC Forward Current	IF	200	200	mA
Pulse Forward Current	IFP	250*1	250*1	mA
Reverse Voltage	VR	5	5	V
Power Dissipation	PD	800	600	mW
Operating Temperature	Topr	-30~+85	-30~+85	°C
Storage Temperature	Tstg	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Color Temperature CCT(K)*4		Luminous Intensity (lm)*3		Reverse Current IR (μ A)		
			Working Current:IF=150mA								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
0SW4KATHC1E	Pure White	Water Clear	3.3	4.0	6500	10000	30	45	<10		
08MSKATHC1E	Warm White	Water Clear	3.3	4.0	3000	4000	20	35	<10		

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd (nm)*5		Luminous Intensity (lm)*3		Reverse Current IR (≧ A)		
			Working Current:IF=150mA								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
08BSXATHC1B	Blue	Water Clear	3.3	4.0	470	475	6	10	<10		
08GSXATHC1B	Pure Green	Water Clear	3.3	4.0	525	535	30	45	<10		
08YSXATHC1B	Amber	Water Clear	2.5	3.0	590	600	20	35	<10		
08RXATHC1B	Red	Water Clear	2.5	3.0	624	629	20	35	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

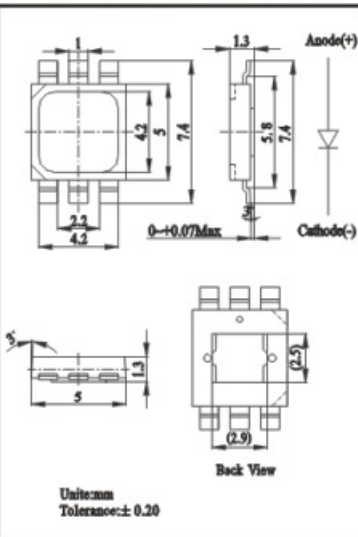
*4 Color Temperature Tolerance is ±500K

*5 Devices are sorted by 5nm wavelength ranges

Note: Do not drive at rated current more than 5 S without heatsink for Tops H LED series.

Package Outlines

(Unit:mm)

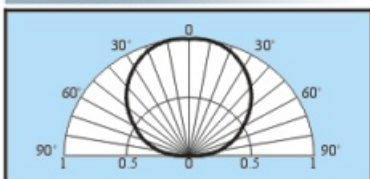




Characters

- Viewing angle 120 deg

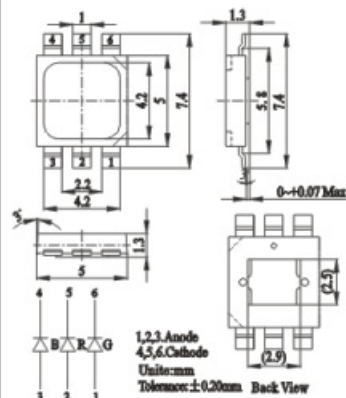
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		G/B	R	
DC Forward Current	IF	200	200	mA
Pulse Forward Current	IFP	250 ^{#1}	250 ^{#1}	mA
Reverse Voltage	VR	5	5	V
Power Dissipation	PD	800	600	mW
Operating Temperature	TOPR	-30~+85	-30~+85	°C
Storage Temperature	TSTG	-40~+100	-40~+100	°C

•1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) *5		Luminous Intensity (lm) *3		Reverse Current IR (μ A)		
			Working Current:IF=150mA								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
OSTCXBTHCIE	Pure Green	Water Clear	3.3	4.0	525	535	30	45	<10		
	Red		2.5	3.0	624	629	20	35	<10		
	Blue		3.3	4.0	470	475	6	10	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Color Temperature Tolerance is $\pm 500\text{K}$

*5 Devices are sorted by 5nm wavelength ranges

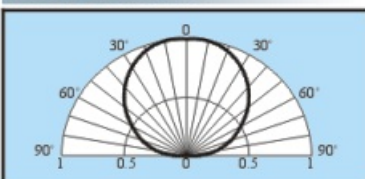
Note: Do not drive at rated current more than 5 S without heatsink for Tops H LED series.

Commercial Power LED Series

Characters

- Viewing angle 120 deg

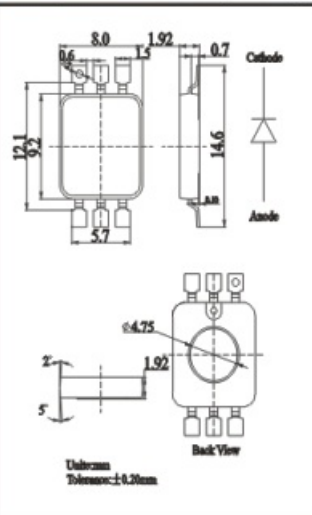
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Rectangular

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value						Unit
		W/M/K/B/G			R/Y			
Power series	P	0.5	1	3	0.5	1	3	W
DC Forward Current	IF	200	400	800	200	400	800	mA
Pulse Forward Current	IFP	250 ^{#1}	500 ^{#1}	1000 ^{#1}	250 ^{#1}	500 ^{#1}	1000 ^{#1}	mA
Reverse Voltage	VR	5	5	5	5	5	5	V
Power Dissipation	PD	800	1600	3200	600	1200	2400	mW
Operating Temperature	Topr	-30~+85			-30~+85			°C
Storage Temperature	Tstg	-40~+100			-40~+100			°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Color Temperature CCT(K)*4		Luminous Intensity (lm)*3		Reverse Current IR (μA)
				Working Current:IF=150mA(0.5W) 350mA(1W) 700mA(3W)						
				Ty.P.	Max.	Ty.P.	Max.	Ty.P.	Max.	
0.5W	OSW4XACHC1E	Pure White	Water Clear	3.3	4.0	6500	10000	30	45	<10
	OSM5XACHC1E	Warm White	Water Clear	3.3	4.0	3000	4000	20	35	<10
1W	OSW4XAC1C1E	Pure White	Water Clear	3.3	4.0	6500	10000	70	100	<10
	OSM5XAC1C1E	Warm White	Water Clear	3.3	4.0	3000	4000	50	70	<10
3W	OSW4XAC3C1E	Pure White	Water Clear	3.3	4.0	6500	10000	130	180	<10
	OSM5XAC3C1E	Warm White	Water Clear	3.3	4.0	3000	4000	90	120	<10

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number ^{#2}	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd(nm) ^{#5}		Luminous Intensity (lm) ^{#3}		Reverse Current IR (μA)		
				Working Current:IP=150mA(0.5W) 350MA(1W) 700mA(3W)								
				Ty.P.	Max.	Ty.P.	Max.	Ty.P.	Max.			
0.5W	OSB5XACHC1E	Blue	Water Clear	3.3	4.0	470	475	6	10	<10		
	OSG5XACHC1E	Pure Green	Water Clear	3.3	4.0	525	535	30	45	<10		
	OSY5XACHC1E	Amber	Water Clear	2.5	3.0	590	600	20	35	<10		
	OSR5XACHC1E	Red	Water Clear	2.5	3.0	624	629	20	35	<10		
1W	OSB5XAC1C1E	Blue	Water Clear	3.3	4.0	470	475	12	17	<10		
	OSG3XAC1C1E	Cyan	Water Clear	3.3	4.0	505	510	70	100	<10		
	OSG5XAC1C1E	Pure Green	Water Clear	3.3	4.0	525	535	70	100	<10		
	OSY5XAC1C1E	Amber	Water Clear	2.5	3.0	590	600	50	70	<10		
3W	OSR5XAC1C1E	Red	Water Clear	2.5	3.0	624	629	50	70	<10		
	OSB5XAC3C1E	Blue	Water Clear	3.3	4.0	470	475	24	32	<10		
	OSG3XAC3C1E	Cyan	Water Clear	3.3	4.0	505	510	130	180	<10		
	OSG5XAC3C1E	Pure Green	Water Clear	3.3	4.0	525	535	130	180	<10		
	OSY5XAC3C1E	Amber	Water Clear	2.5	3.0	590	600	90	120	<10		
	OSR5XAC3C1E	Red	Water Clear	2.5	3.0	624	629	90	120	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Color Temperature Tolerance is ±500K

*5 Devices are sorted by 5nm wavelength ranges

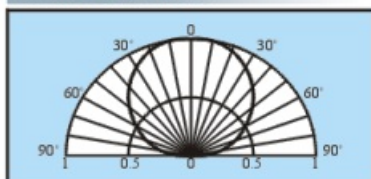
Note: Do not drive at rated current more than 5 S without heatsink for Commercial Power LED series.



Characters

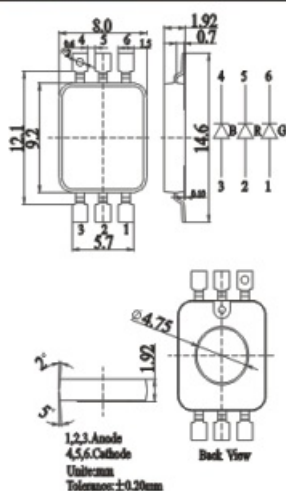
- Viewing angle 120 deg

Directive Characteristics



Relative Luminous Intensity

Package Outlines (Unit:mm)



Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value				Unit
		G/B		R		
Power series	P	0.5	1	0.5	1	W
DC Forward Current	I _F	200	400	200	400	mA
Pulse Forward Current	I _{FF}	250 ^{*1}	500 ^{*1}	250 ^{*1}	500 ^{*1}	mA
Reverse Voltage	V _R	5	5	5	5	V
Power Dissipation	P _D	800	1600	600	1200	mW
Operating Temperature	T _{OP}	-30~+85		-30~+85		°C
Storage Temperature	T _{ST}	-40~+100		-40~+100		°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (lm)*3		Reverse Current IR (μ A)		
			Working Current:IF=150mA (0.5W)								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
OSTCKBCH1E	Pure Green	Water Clear	3.3	4.0	525	535	30	45	<10		
	Red	Water Clear	2.5	3.0	624	629	20	35	<10		
	Blue	Water Clear	3.3	4.0	470	475	6	10	<10		

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (lm)*3		Reverse Current IR (μ A)		
			Working Current:IF=350mA (1W)								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
08TCKBC1C1E	Pure Green	Water Clear	3.3	4.0	525	535	70	100	<10		
	Red	Water Clear	2.5	3.0	624	629	50	70	<10		
	Blue	Water Clear	3.3	4.0	470	475	12	17	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Color Temperature Tolerance is $\pm 500\text{K}$

*5. Devices are sorted by 5nm wavelength ranges

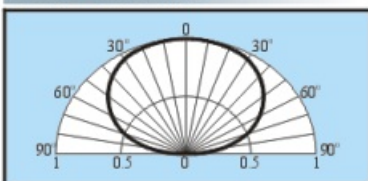
Note: Do not drive at rated current more than 3 S without heatsink for Commercial Power Full Color LED series.

Xeon Power LED Series

Characters

- Viewing angle 140 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value						Unit
		W/M/K/B/G			R/Y			
Power series	P	0.5	1	3	0.5	1	3	W
DC Forward Current	IF	200	400	800	200	400	800	mA
Pulse Forward Current	IFP	250 ^①	500 ^①	1000 ^①	250 ^①	500 ^①	1000 ^①	mA
Reverse Voltage	V _R	5	5	5	5	5	5	V
Power Dissipation	P _D	800	1600	3200	600	1200	2400	mW
Operating Temperature	T _{opr}	-30~+85						°C
Storage Temperature	T _{stg}	-40~+100						°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Color Temperature CCT(K)*4		Luminous Intensity (lm)*5		Reverse Current IR (μA)	
				Working Current:IF=150mA(0.5W) 350mA(1W) 700mA(3W)							
				Typ.F	Max.	Typ.F	Max.	Typ.F	Max.		
0.5W	OSW4XAEHE1E	Pure White	Water Clear	3.3	4.0	6500	10000	30	45	<10	
	OSM5XAEHE1E	Warm White	Water Clear	3.3	4.0	3000	4000	20	35	<10	
1W	OSW4XAE1E1E	Pure White	Water Clear	3.3	4.0	6500	10000	70	100	<10	
	OSM5XAE1E1E	Warm White	Water Clear	3.3	4.0	3000	4000	50	70	<10	
3W	OSW4XAE3E1E	Pure White	Water Clear	3.3	4.0	6500	10000	130	180	<10	
	OSM5XAE3E1E	Warm White	Water Clear	3.3	4.0	3000	4000	90	120	<10	

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (lm)*5		Reverse Current IR (μA)		
				Working Current:IF=150mA(0.5W) 350mA(1W) 700mA(3W)								
				Typ.	Max.	Typ.	Max.	Typ.	Max.			
0.5W	OSB5XAEHE1E	Blue	Water Clear	3.3	4.0	470	475	6	10	<10		
	OSG5XAEHE1E	Pure Green	Water Clear	3.3	4.0	525	535	30	45	<10		
	OSY5XAEHE1E	Amber	Water Clear	2.5	3.0	590	600	20	35	<10		
	OSR5XAEHE1E	Red	Water Clear	2.5	3.0	624	629	20	35	<10		
1W	OSB5XAE1E1E	Blue	Water Clear	3.3	4.0	470	475	12	17	<10		
	OSG3XAE1E1E	Cyan	Water Clear	3.3	4.0	505	510	70	100	<10		
	OSG5XAE1E1E	Pure Green	Water Clear	3.3	4.0	525	535	70	100	<10		
	OSY5XAB1B1E	Amber	Water Clear	2.5	3.0	590	600	50	70	<10		
3W	OSR5XAE1E1E	Red	Water Clear	2.5	3.0	624	629	50	70	<10		
	OSB5XAE3E1E	Blue	Water Clear	3.3	4.0	470	475	24	32	<10		
	OSG3XAB3B1E	Cyan	Water Clear	3.3	4.0	505	510	130	180	<10		
	OSG5XAB3E1E	Pure Green	Water Clear	3.3	4.0	525	535	130	180	<10		
	OSY5XAB3B1E	Amber	Water Clear	2.5	3.0	590	600	90	120	<10		
	OSR5XAE3E1E	Red	Water Clear	2.5	3.0	624	629	90	120	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

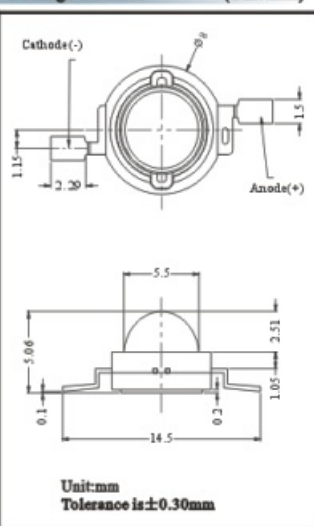
*4 Color Temperature Tolerance is ±500K

*5 Devices are sorted by 5nm wavelength ranges

Note: Do not drive at rated current more than 5 S without heatsink for Xeon Power LED series.

Package Outlines

(Unit:mm)



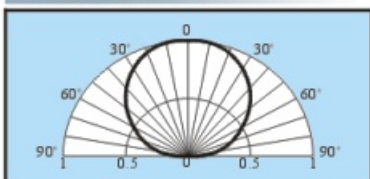
Round

Power Top SMD Mono-Color LED Series

Characters

- Viewing angle 120 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value				Unit
		W/M/K/B/G		R/Y/O		
Power series	P	0.1	0.3	0.1	0.3	W
DC Forward Current	IF	35	120	70	120	mA
Pulse Forward Current	IFP	100 ^{※1}	200 ^{※1}	120 ^{※1}	200 ^{※1}	mA
Reverse Voltage	VR	5	5	5	5	V
Power Dissipation	PD	133	480	182	360	mW
Operating Temperature	T _{opr}	-30~+85		-30~+85		°C
Storage Temperature	T _{stg}	-40~+100		-40~+100		°C

※1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number ^{※2}	Emitting Color	Lens Type	Forward Voltage VF(V)		Chromaticity coordinates ^{※4}				Luminous Intensity (mcd) ^{※5}		Reverse Current IR (μA)		
						X		Y						
				Working Current:IF=30mA(0.1W) 70mA(0.3W)										
				Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.			
0.1W	OSW5DLS3C1A	Pure White	Water Clear	3.3	3.8	0.23	0.31	0.24	0.32	2500	3500	<10		
	OSM5DLS3C1A	Warm White	Water Clear	3.3	3.8	0.41	0.49	0.37	0.45	1900	2500	<10		
	OSK5DLS3C1A	Pink	Water Clear	3.3	3.8	0.41	0.49	0.13	0.21	570	700	<10		
0.3W	OSW5XLS3C1H	Pure White	Water Clear	3.3	4.0	0.23	0.31	0.24	0.32	6000	10000	<10		
	OSM5XLS3C1H	Warm white	Water Clear	3.3	4.0	0.41	0.49	0.37	0.45	4500	7000	<10		
	OSK5XLS3C1H	Pink	Water Clear	3.3	4.0	0.41	0.49	0.13	0.21	1400	2000	<10		

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd(nm) ^{*5}		Luminous Intensity (mcd) ^{*5}		Reverse Current IR (μA)		
				Working Current: IF=30mA(0.1W) 70mA(0.3W)								
				TyP.	Max.	TyP.	Max.	TyP.	Max.			
0.1W	OSB5SL3C1A	Blue	Water Clear	3.3	3.8	470	475	600	1200	<10		
	OSG3DAS3C1A	Bluish Green	Water Clear	3.3	3.8	505	510	1500	2500	<10		
	OSG5DAS3C1A	Pure Green	Water Clear	3.3	3.8	525	535	1500	2500	<10		
0.3W	OSB5XL3C1H	Blue	Water Clear	3.3	4.0	470	475	1800	2500	<10		
	OSG5XAS3C1H	Pure Green	Water Clear	3.3	4.0	525	535	4500	7000	<10		

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number*2	Emitting Color	Lens Type	Forward Voltage VP(V)		Dominant Wavelength wd(nm)*2		Luminous Intensity (mcd)*3		Reverse Current IR (μA)
				Working Current IF=30mA(0.1W) 100mA(0.3W)						
				TyP.	Max.	TyP.	Max.	TyP.	Max.	
0.1W	OSR5CAS3C1A	Red	Water Clear	2.2	2.6	624	629	1500	2500	<10
	OSY5CAS3C1A	Yellow	Water Clear	2.2	2.6	590	595	1500	2500	<10
	OSO5GAS3C1A	Orange	Water Clear	2.2	2.6	605	610	1500	2500	<10
0.3W	OSY5XAS3C1H	Amber	Water Clear	2.5	3.0	590	600	4500	7000	<10
	OSR5XAS3C1H	Red	Water Clear	2.5	3.0	624	629	4500	7000	<10

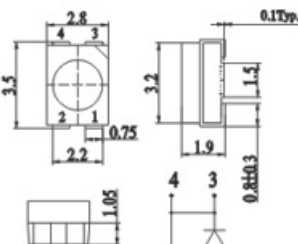
※2 See table for Luminous Intensity Ranks

※3 Axial Direction (Luminous Intensity)

※4 Please refer to CIE 1931 chromaticity diagram

※5 Devices are sorted by 5nm wavelength ranges

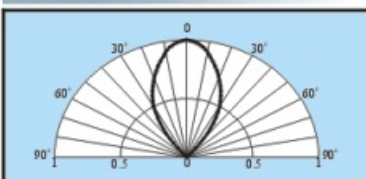
Package Outlines (Unit:mm)



1. Anode
2,3,4. Cathode
Unit:mm
Tolerance: ±0.30mm
Note: 1 is Cathode For OSXXCX

Characters

- Viewing angle 60 deg

Directive Characteristics

Relative Luminous Intensity
Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y	
DC Forward Current	IF	120	120	mA
Pulse Forward Current	IFP	200*1	200*1	mA
Reverse Voltage	VR	5	5	V
Power Dissipation	PD	480	360	mW
Operating Temperature	Topr	-30~+85	-30~+85	°C
Storage Temperature	Tstg	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μ A)	
					X		Y					
			Working Current:IF=100mA									
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.		
08W5XLZ161G	Pure White	Water Clear	3.3	4.0	0.23	0.31	0.24	0.32	15000	20000	<10	
08M5XLZ161G	Warm White	Water Clear	3.3	4.0	0.41	0.49	0.37	0.45	10000	15000	<10	
08K5XLZ161G	Pink	Water Clear	3.3	4.0	0.41	0.49	0.13	0.21	4500	7000	<10	

Electrical And Optical Characteristics (Ta=25°C)

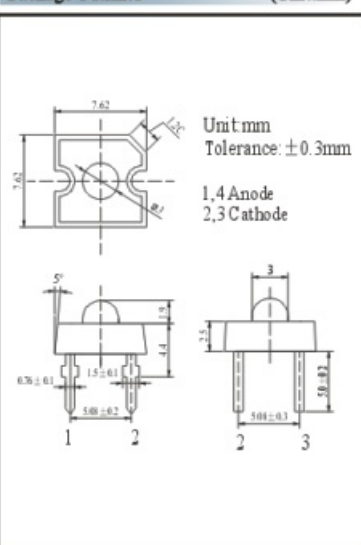
Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
			Working Current:IF=100mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
08B5XLZ161G	Blue	Water Clear	3.3	4.0	470	475	7500	10000	<10	
08G5XLZ161G	Pure Green	Water Clear	3.3	4.0	525	535	12000	17000	<10	
08R5XLZ161G	Red	Water Clear	2.5	3.0	625	630	10000	15000	<10	
08Y5XLZ161G	Yellow	Water Clear	2.5	3.0	590	595	10000	15000	<10	

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

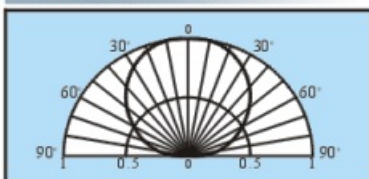
Package Outlines
(Unit:mm)


3 in 1 Series Super Flux LED OSX5X3Z2CIP

Characters

- Viewing angle 120 deg

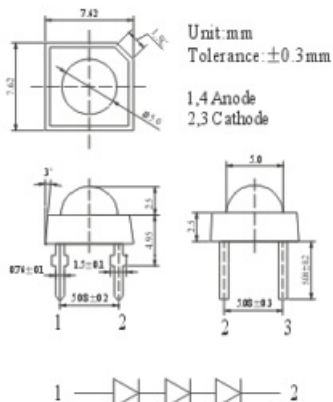
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Absolute Maximum Rating ($T_a=25^\circ\text{C}$)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	25	30	mA
Pulse Forward Current	I_{FP}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	15	15	V
Power Dissipation	P_D	270	216	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40~+100	-40~+100	$^\circ\text{C}$

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5D3Z2CIP	Pure White	Water Clear	9.3	10.8	0.23	0.31	0.24	0.32	14000	20000	<10
OSMSD3Z2CIP	Warm White	Water Clear	9.3	10.8	0.41	0.49	0.37	0.45	11000	17000	<10
OSK5D3Z2CIP	Pink	Water Clear	9.3	10.8	0.41	0.49	0.13	0.21	3800	5000	<10

Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)		
			Working Current:IF=20 mA								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
08B5S3Z2CIP	Blue	Water Clear	9.3	10.8	470	475	2000	3500	<10		
08G5D3Z2CIP	Pure Green	Water Clear	9.3	10.8	525	535	7000	10000	<10		
08R5M3Z2CIP	Red	Water Clear	6.3	7.2	624	629	4000	6000	<10		
08Y5M3Z2CIP	Yellow	Water Clear	6.3	7.2	590	595	4000	6000	<10		
08O5M3Z2CIP	Orange	Water Clear	6.3	7.2	605	610	4000	6000	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

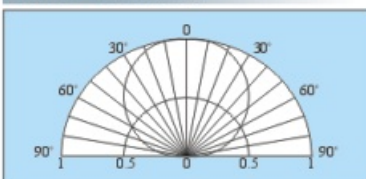
Deluxe Power Super Flux LED Series



Characters

- Viewing angle 120 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I _F	35	70	mA
Pulse Forward Current	I _{FP}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V _R	5	5	V
Power Dissipation	P _D	133	130	mW
Operating Temperature	T _{opr}	-30~+85	-30~+85	°C
Storage Temperature	T _{stg}	-40~+100	-40~+100	°C

•1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number ^②	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^④				Luminous Intensity (mcd) ^⑤		Reverse Current IR (μA)
					X		Y				
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DL2C1P	Pure White	Water Clear	3.3	3.8	0.23	0.31	0.24	0.32	8800	10000	<10
OSMSDL2C1P	Warm White	Water Clear	3.3	3.8	0.41	0.49	0.37	0.45	5700	7000	<10
OSK5DL2C1P	Pink	Water Clear	3.3	3.8	0.41	0.49	0.13	0.21	1300	2500	<10

Electrical And Optical Characteristics (Ta=25°C)

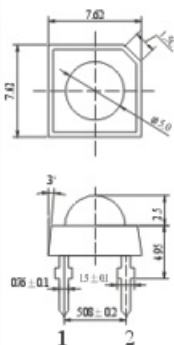
Part Number*3	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)
			Working Current:IF=30 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OS8S3LZ2C1P	Blue	Water Clear	3.3	3.8	470	475	1500	1800	<10
OS8G5DLZ2C1P	Pure Green	Water Clear	3.3	3.8	525	535	4500	6000	<10

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μA)
			Working Current:IF=50 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSR5MAZ2C1P	Red	Water Clear	2.3	2.6	624	629	4000	6000	<10
O6Y5MAZ2C1P	Yellow	Water Clear	2.3	2.6	590	595	4000	6000	<10
OS05MAZ2C1P	Orange	Water Clear	2.3	2.6	605	610	4000	6000	<10

Part Number* ¹	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)* ²		Luminous Intensity (mcd)* ²		Reverse Current IR (μ A)
			Working Current:IF=70 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSF5CAZ2CIP	Red	Water Clear	2.3	2.6	624	629	4500	6000	<10
OSY5CAZ2CIP	Yellow	Water Clear	2.3	2.6	590	595	4500	6000	<10
OSO5GAZ2CIP	Orange	Water Clear	2.3	2.6	605	610	4500	6000	<10

Package Outlines

(Unit:mm)



Unit:mm
Tolerance: $\pm 0.3\text{mm}$

1,4 Anode
2,3 Cathode

Note: 1.4 is Cathode For OSXXCX Series

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

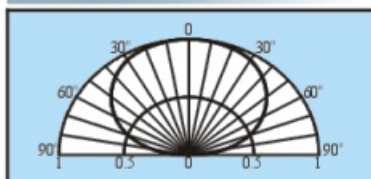
Tpower $\Phi 4.8$ Straw LED Series



Characters

- Viewing angle 140 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value				Unit
		W/M/K/B/G	R/Y/O			
Power series	P	0.2	0.3	0.2	0.3	W
DC Forward Current	IF	25	120	30	120	mA
Pulse Forward Current	IFP	100 ^{※1}	200 ^{※1}	120 ^{※1}	200 ^{※1}	mA
Reverse Voltage	VR	15	5	15	5	V
Power Dissipation	PD	270	480	216	360	mW
Operating Temperature	T _{opr}	-30~+85		-30~+85		°C
Storage Temperature	T _{stg}	-40~+100		-40~+100		°C

※1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number ^{※2}	Emitting Color	Lens Type	Forward Voltage VF(V)		Chromaticity coordinates ^{※4}				Luminous Intensity (mcd) ^{※5}		Reverse Current IR (μA)		
						X		Y						
				Working Current IF=20mA(0.2W) 100mA(0.3W)										
				Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.			
0.2W	OSW5D356E1R	Pure White	Water Clear	9.3	10.8	0.23	0.31	0.24	0.32	4800	5500	<10		
	OSM5D356E1R	Warm White	Water Clear	9.3	10.8	0.41	0.49	0.37	0.45	2900	3500	<10		
	OSK5D356E1R	Pink	Water Clear	9.3	10.8	0.41	0.49	0.13	0.21	950	1500	<10		
0.3W	OSW5XL56E1R	Pure White	Water Clear	3.3	4.0	0.23	0.31	0.24	0.32	5500	10000	<10		
	OSM5XL56E1R	Warm White	Water Clear	3.3	4.0	0.41	0.49	0.37	0.45	3300	5000	<10		
	OSK5XL56E1R	Pink	Water Clear	3.3	4.0	0.41	0.49	0.13	0.21	1000	2000	<10		

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*6		Reverse Current IR (uA)		
				Working Current IF=20mA(0.2W) 100mA(0.3W)								
				Typ.	Max.	Typ.	Max.	Typ.	Max.			
0.2W	OSB5S356E1R	Blue	Water Clear	9.3	10.8	470	475	1200	3000	<10		
	OSG5D356E1R	Bluish Green	Water Clear	9.3	10.8	505	510	3800	5500	<10		
	OSG5D356E1R	Pure Green	Water Clear	9.3	10.8	525	535	3800	5500	<10		
	OSR5M356E1R	Red	Water Clear	6.3	7.2	624	629	2700	4500	<10		
	OSY5M356E1R	Yellow	Water Clear	6.3	7.2	590	595	2700	4500	<10		
	OSO5M356E1R	Orange	Water Clear	6.3	7.2	605	610	2700	4500	<10		
0.3W	OSB5XL56E1R	Blue	Water Clear	3.3	4.0	470	475	1800	4000	<10		
	OSG5XA56E1R	Pure Green	Water Clear	3.3	4.0	525	535	5500	8000	<10		
	OSY5XA56E1R	Amber	Water Clear	2.5	3.0	590	600	4000	6000	<10		
	OSR5XA56E1R	Red	Water Clear	2.5	3.0	624	629	4000	6000	<10		

※2 See table for Luminous Intensity Ranks

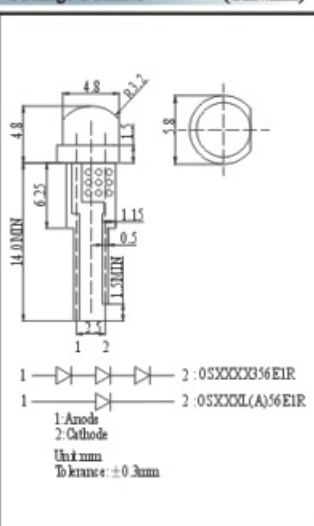
※3 Axial Direction (Luminous Intensity)

※4 Please refer to CIE 1931 chromaticity diagram

※5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)

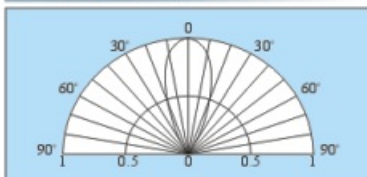


Tpower $\Phi 5$ Round LED Series

Characters

- Viewing angle 40 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value				Unit
		W/M/K/B/G	R/Y/O			
Power series	P	0.2	0.3	0.2	0.3	W
DC Forward Current	IF	25	120	30	120	mA
Pulse Forward Current	IFP	100 ^{※1}	200 ^{※1}	120 ^{※1}	200 ^{※1}	mA
Reverse Voltage	VR	15	5	15	5	V
Power Dissipation	PD	270	480	216	360	mW
Operating Temperature	Topr	-30~+85		-30~+85		°C
Storage Temperature	Tstg	-40~+100		-40~+100		°C

※1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number ^{※2}	Emitting Color	Lens Type	Forward Voltage VF(V)		Chromaticity coordinates ^{※4}				Luminous Intensity (mcd) ^{※3}		Reverse Current IR (μA)		
						X		Y						
				Working Current: IF=20mA(0.2W) 100mA(0.3W)										
				Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.			
0.2W	OSW5D35141R	Pure White	Water Clear	9.3	10.8	0.23	0.31	0.24	0.32	19000	25000	<10		
	OSM5D35141R	Warm White	Water Clear	9.3	10.8	0.41	0.49	0.37	0.45	15000	20000	<10		
	OSK5D35141R	Pink	Water Clear	9.3	10.8	0.41	0.49	0.13	0.21	1900	3000	<10		
0.3W	OSW5XL5141R	Pure White	Water Clear	3.3	4.0	0.23	0.31	0.24	0.32	22000	30000	<10		
	OSM5XL5141R	Warm White	Water Clear	3.3	4.0	0.41	0.49	0.37	0.45	17000	25000	<10		
	OSK5XL5141R	Pink	Water Clear	3.3	4.0	0.41	0.49	0.13	0.21	2100	4000	<10		

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number ^{※2}	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd(nm) ^{※3}		Luminous Intensity (mcd) ^{※3}		Reverse Current IR (μA)		
				Working Current:IF=20mA(0.2W) 100mA(0.3W)								
				Typ.	Max.	Typ.	Max.	Typ.	Max.			
0.2W	OSB5B35141R	Blue	Water Clear	9.3	10.8	470	475	4500	6000	<10		
	OSG3D35141R	Bluish Green	Water Clear	9.3	10.8	505	510	14000	18000	<10		
	OSG5D35141R	Pure Green	Water Clear	9.3	10.8	525	535	14000	18000	<10		
	OSR5M35141R	Red	Water Clear	6.3	7.2	624	629	9000	15000	<10		
	OSY5M35141R	Yellow	Water Clear	6.3	7.2	590	595	9000	15000	<10		
	OSO3M35141R	Orange	Water Clear	6.3	7.2	605	610	9000	15000	<10		
0.3W	OSB5XL5141R	Blue	Water Clear	3.3	4.0	470	475	6500	9000	<10		
	OSG5XA5141R	Pure Green	Water Clear	3.3	4.0	525	535	20000	30000	<10		
	OSY5XA5141R	Amber	Water Clear	2.5	3.0	590	600	13000	20000	<10		
	OSR5XA5141R	Red	Water Clear	2.5	3.0	624	629	13000	20000	<10		

※2 See table for Luminous Intensity Ranks

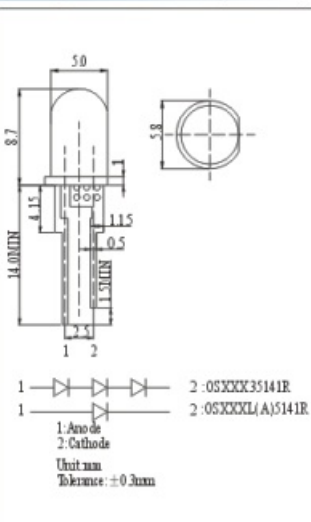
※3 Axial Direction (Luminous Intensity)

※4 Please refer to CIE 1931 chromaticity diagram

※5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



Round

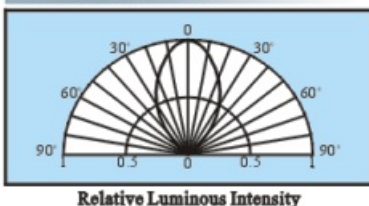
Tpower $\Phi 8$ Round LED Series



Characters

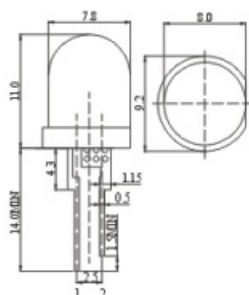
- Viewing angle 60 deg

Directive Characteristics



Package Outlines

(Unit:mm)



1: 050C08A61R
2: 050C08A61R

1: Anode
2: Cathode
Unknown
Tolerance: ± 0.3 mm

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
Power series	P	0.2	0.3	W
DC Forward Current	IF	25	120	mA
Pulse Forward Current	IFP	100 ^{*1}	200 ^{*1}	mA
Reverse Voltage	VR	15	5	V
Power Dissipation	PD	270	480	mW
Operating Temperature	Topr	-30~+85	-30~+85	°C
Storage Temperature	Tstg	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF(V)		Chromaticity coordinates ^{*4}				Luminous Intensity		Reverse Current IR (μA)
						X		Y		(mcd) ^{*5}		
				Working Current IF=20mA(0.2W) 100mA(0.3W)								
				Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
0.2W	OSW5D38A61R	Pure White	Water Clear	9.3	10.8	0.23	0.31	0.24	0.32	15000	20000	<10
	OSM5D38A61R	Warm White	Water Clear	9.3	10.8	0.41	0.49	0.37	0.45	9500	12000	<10
	OSK5D38A61R	Pink	Water Clear	9.3	10.8	0.41	0.49	0.13	0.21	2400	4000	<10
0.3W	OSW5XL8A61R	Pure White	Water Clear	3.3	4.0	0.23	0.31	0.24	0.32	17000	25000	<10
	OSM5XL8A61R	Warm White	Water Clear	3.3	4.0	0.41	0.49	0.37	0.45	10000	15000	<10
	OSK5XL8A61R	Pink	Water Clear	3.3	4.0	0.41	0.49	0.13	0.21	2800	4000	<10

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*5		Reverse Current IR (μA)		
				Working Current IF=20mA(0.2W) 100mA(0.3W)								
				Typ.	Max.	Typ.	Max.	Typ.	Max.			
0.2W	OSB5S38A61R	Blue	Water Clear	9.3	10.8	470	475	3000	5000	<10		
	OSG3D38A61R	Bluish Green	Water Clear	9.3	10.8	505	510	12000	16000	<10		
	OSG5D38A61R	Pure Green	Water Clear	9.3	10.8	525	535	12000	16000	<10		
	OSR5M38A61R	Red	Water Clear	6.3	7.2	624	629	7000	10000	<10		
	OSY5M38A61R	Yellow	Water Clear	6.3	7.2	590	595	7000	10000	<10		
	OSO5M38A61R	Orange	Water Clear	6.3	7.2	605	610	7000	10000	<10		
0.3W	OSB5XL8A61R	Blue	Water Clear	3.3	4.0	470	475	4500	7000	<10		
	OSG5XA8A61R	Pure Green	Water Clear	3.3	4.0	525	535	17000	25000	<10		
	OSY5XA8A61R	Amber	Water Clear	2.5	3.0	590	600	10000	15000	<10		
	OSR5XA8A61R	Red	Water Clear	2.5	3.0	624	629	10000	15000	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

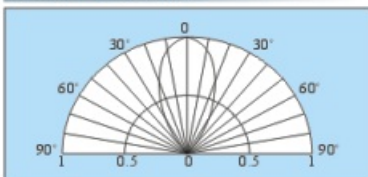
*5 Devices are sorted by 5nm wavelength ranges

Tpower Φ 10 Round LED Series

Characters

- Viewing angle 50deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
Power series	P	0.2	0.3	W
DC Forward Current	IF	25	120	mA
Pulse Forward Current	IFP	100*1	200*1	mA
Reverse Voltage	VR	15	5	V
Power Dissipation	PD	270	480	mW
Operating Temperature	Topr	-30~+85	-30~+85	°C
Storage Temperature	Tstg	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*5		Reverse Current IR (μA)
						X		Y				
				Working Current:IF=20mA(0.2W) 100mA(0.3W)								
				Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
0.2W	OSW5D3A151R	Pure White	Water Clear	9.3	10.8	0.23	0.31	0.24	0.32	25000	35000	<10
	OSM5D3A151R	Warm White	Water Clear	9.3	10.8	0.41	0.49	0.37	0.45	20000	25000	<10
	OSK5D3A151R	Pink	Water Clear	9.3	10.8	0.41	0.49	0.13	0.21	3800	5000	<10
0.3W	OSW5XLA151R	Pure White	Water Clear	3.3	4.0	0.23	0.31	0.24	0.32	30000	45000	<10
	OSM5XLA151R	Warm White	Water Clear	3.3	4.0	0.41	0.49	0.37	0.45	22000	30000	<10
	OSK5XLA151R	Pink	Water Clear	3.3	4.0	0.41	0.49	0.13	0.21	4000	7000	<10

Electrical And Optical Characteristics (Ta=25°C)

Power	Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*5		Reverse Current IR (μA)		
				Working Current:IF=20mA(0.2W) 100mA(0.3W)								
				Typ.	Max.	Typ.	Max.	Typ.	Max.			
0.2W	OSB5S3A151R	Blue	Water Clear	9.3	10.8	470	475	7000	10000	<10		
	OSG5D3A151R	Bluish Green	Water Clear	9.3	10.8	505	510	20000	30000	<10		
	OSG5D3A151R	Pure Green	Water Clear	9.3	10.8	525	535	20000	30000	<10		
	OSR5M3A151R	Red	Water Clear	6.3	7.2	624	629	15000	20000	<10		
	OSY5M3A151R	Yellow	Water Clear	6.3	7.2	590	595	15000	20000	<10		
	OSO5M3A151R	Orange	Water Clear	6.3	7.2	605	610	15000	20000	<10		
0.3W	OSB5XLA151R	Blue	Water Clear	3.3	4.0	470	475	10000	15000	<10		
	OSG5XAA151R	Pure Green	Water Clear	3.3	4.0	525	535	30000	45000	<10		
	OSY5XAA151R	Amber	Water Clear	2.5	3.0	590	600	20000	30000	<10		
	OSR5XAA151R	Red	Water Clear	2.5	3.0	624	629	20000	30000	<10		

*2 See table for Luminous Intensity Ranks

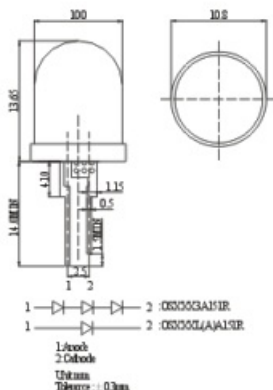
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



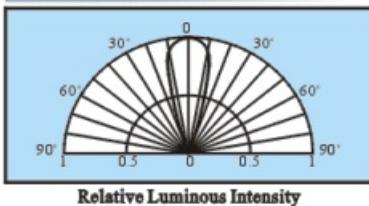
Round



Characters

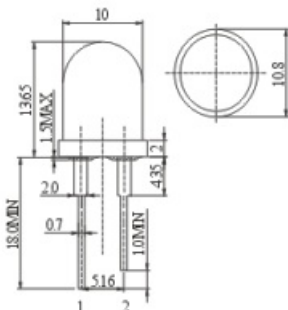
- Viewing angle 30 deg

Directive Characteristics



Package Outlines

(Unit:mm)



1 Anode
2 Cathode
Unit:mm
Tolerance: ± 0.3 mm

Absolute Maximum Rating ($T_a=25^\circ\text{C}$)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	25	30	mA
Pulse Forward Current	I_{FP}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	15	15	V
Power Dissipation	P_D	270	216	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40~+100	-40~+100	$^\circ\text{C}$

*1 Duty 1/10 Puls3 Width 10 ms

Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5D3A131U	Pure White	Water Clear	9.3	10.8	0.23	0.31	0.24	0.32	25000	35000	<10
OSMSD3A131U	Warm White	Water Clear	9.3	10.8	0.41	0.49	0.37	0.45	20000	25000	<10
OSK5D3A131U	Pink	Water Clear	9.3	10.8	0.41	0.49	0.13	0.21	3800	6000	<10

Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)	
			Working Current:IF=20 mA							
			Typ.	Max.	Typ.		Max.	Typ.		Max.
O8B5S3A131U	Blue	Water Clear	9.3	10.8	470		475	6500	10000	<10
O8G5S3A131U	Pure Green	Water Clear	9.3	10.8	525		535	14000	20000	<10
O8R5M3A131U	Red	Water Clear	6.3	7.2	624		629	10000	15000	<10
O8Y5M3A131U	Yellow	Water Clear	6.3	7.2	590		595	10000	15000	<10
O8OSM3A131U	Orange	Water Clear	6.3	7.2	605		610	10000	15000	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

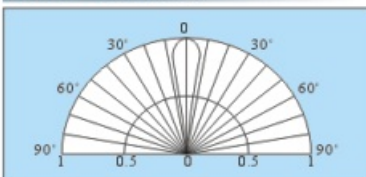
*5 Devices are sorted by 5nm wavelength ranges

Deluxe Power $\Phi 3$ Round LED Series

Characters

- Viewing angle 15 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	35	50	mA
Pulse Forward Current	I_{FP}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	133	130	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~+100	-40~+100	$^{\circ}\text{C}$

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μ A)		
					X		Y						
			Working Current:IF=30 mA										
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.			
OSW5DL3A11P	Pure White	Water Clear	3.3	3.8	0.23	0.31	0.24	0.32	16000	20000	<10		
OSMSDL3A11P	Warm White	Water Clear	3.3	3.8	0.41	0.49	0.37	0.45	10000	15000	<10		
OSK5DL3A11P	Pink	Water Clear	3.3	3.8	0.41	0.49	0.13	0.21	2000	4000	<10		

Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)		
			Working Current:IF=30 mA								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
OSB5SL3A11P	Blue	Water Clear	3.3	3.8	470	475	6000	10000	<10		
OSG3DA3A11P	Bluish Green	Water Clear	3.3	3.8	505	510	12000	20000	<10		
OSG5DA3A11P	Pure Green	Water Clear	3.3	3.8	525	535	12000	20000	<10		
OSR5CA3A11P	Red	Water Clear	2.2	2.6	624	629	10000	20000	<10		
OSY5CA3A11P	Yellow	Water Clear	2.2	2.6	590	595	10000	20000	<10		
OSG5GA3A11P	Orange	Water Clear	2.2	2.6	605	610	10000	20000	<10		
OSR5MA3A11P	Red	Water Clear	2.2	2.6	624	629	13000	25000	<10		
OSY5MA3A11P	Yellow	Water Clear	2.2	2.6	590	595	13000	25000	<10		
OSG5MA3A11P	Orange	Water Clear	2.2	2.6	605	610	13000	25000	<10		

*2 See table for Luminous Intensity Ranks

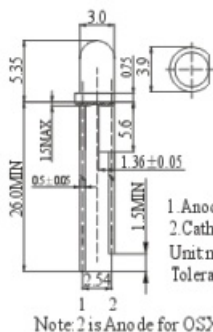
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



Note: 2 is Anode for OSXXCX Series

Round

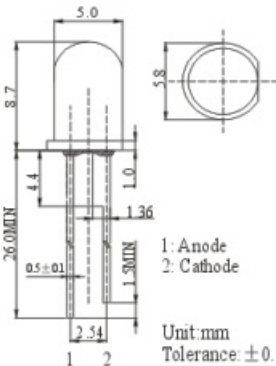
Round



● Viewing angle 15 deg

Relative Luminous Intensity

(Unit: nm)



Note: 2 is Anode For OSXXCX Series

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I _F	35	50	mA
Pulse Forward Current	I _{FP}	100 ^{a1}	120 ^{a1}	mA
Reverse Voltage	V _R	5	5	V
Power Dissipation	P _D	133	130	mW
Operating Temperature	T _{OPR}	-30+85	-30+85	°C
Storage Temperature	T _{STG}	-40+100	-40+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=30 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSWSDL511P	Pure White	Water Clear	3.3	3.8	0.23	0.31	0.24	0.32	40000	50000	<10
OSMSDL511P	Warm White	Water Clear	3.3	3.8	0.41	0.49	0.37	0.45	23000	30000	<10
OSKSDL511P	Pink	Water Clear	3.3	3.8	0.41	0.49	0.13	0.21	6000	8000	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)		
			Working Current:IF=30 mA								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
OSBSL5111P	Blue	Water Clear	3.3	3.8	470	475	18000	25000	<10		
OSG3DA5111P	Bluish Green	Water Clear	3.3	3.8	505	510	30000	40000	<10		
OSG3DA5111P	Pure Green	Water Clear	3.3	3.8	525	535	30000	40000	<10		
OSR3CA5111P	Red	Water Clear	2.2	2.6	624	629	25000	35000	<10		
OSY3CA5111P	Yellow	Water Clear	2.2	2.6	590	595	25000	35000	<10		
OSO5GA5111P	Orange	Water Clear	2.2	2.6	605	610	25000	35000	<10		
OSR5MA5111P	Red	Water Clear	2.2	2.6	624	629	32000	40000	<10		
OSY5MA5111P	Yellow	Water Clear	2.2	2.6	590	595	32000	40000	<10		
OSO5MA5111P	Orange	Water Clear	2.2	2.6	605	610	32000	40000	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

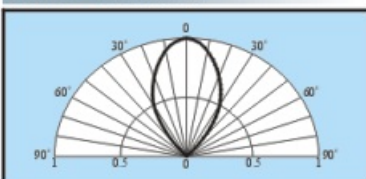
*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Characters

- Viewing angle 60 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{FP}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)	
					X		Y					
			Working Current:IF=20 mA									
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.		
OSW5DAZ161D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	8200	12000	<10	
OSM5DAZ161D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	4500	6000	<10	
OSK5DAZ161D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	1900	3000	<10	

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*2}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current: IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DLZ161D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	7000	9000	<10
OSM5DLZ161D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	3800	5000	<10
OSK5DLZ161D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	1500	2000	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) ^{*3}		Luminous Intensity (mcd) ^{*3}		Reverse Current IR (≧ A)	
			Working Current:IF=20 mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
OSB5SAZ161D	Blue	Water Clear	3.1	3.6	470	475	2500	4000	<10	
OSG5SAZ161D	Pure Green	Water Clear	3.1	3.6	525	535	5000	7000	<10	
OSV5SAZ161D	Violet	Water Clear	3.4	3.8	405	410	20	40	<10	
OSR5SAZ161D	Red	Water Clear	2.1	2.4	625	630	1000	1500	<10	
OSY5SAZ161D	Yellow	Water Clear	2.1	2.4	590	595	1000	1500	<10	
OSO5SAZ161D	Orange	Water Clear	2.1	2.4	605	610	1000	1500	<10	
OSR5CAZ161D	Red	Water Clear	2.1	2.4	624	629	2500	3000	<10	
OSY5CAZ161D	Yellow	Water Clear	2.1	2.4	590	595	2500	3000	<10	
OSO5CAZ161D	Orange	Water Clear	2.1	2.4	605	610	2500	3000	<10	
OSR5MAZ161D	Red	Water Clear	2.1	2.4	624	629	4000	6000	<10	
OSY5MAZ161D	Yellow	Water Clear	2.1	2.4	590	595	4000	6000	<10	
OSO5MAZ161D	Orange	Water Clear	2.1	2.4	605	610	4000	6000	<10	

*2 See table for Luminous Intensity Ranks

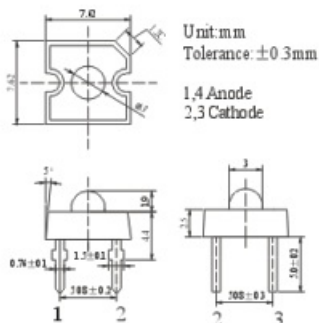
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



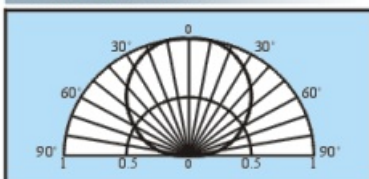
Note: 1,4 is Cathode For And OSXXCX Series



Characters

- Viewing angle 120 deg

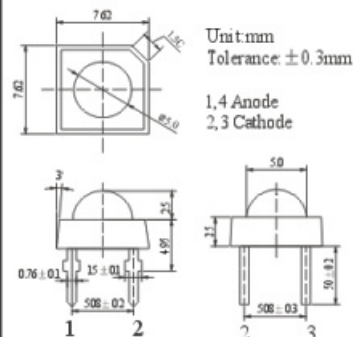
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Note: 1.4 is Cathode For OSXXCX Series

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I _F	30	50	mA
Pulse Forward Current	I _{FP}	100 ^{a1}	120 ^{a1}	mA
Reverse Voltage	V _R	5	5	V
Power Dissipation	P _D	108	120	mW
Operating Temperature	T _{opr}	-30~+85	-30~+85	°C
Storage Temperature	T _{stg}	-40~+100	-40~+100	°C

•1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number#2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{#1}				Luminous Intensity (mcd) ^{#3}		Reverse Current IR (μA)
					X		Y				
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DAZ2C1D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	5700	8000	<10
OSK5DAZ2C1D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	3150	5000	<10
OSW5DAZ2C1D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	900	1500	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					X		Y				
			Working Current: IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DL2C1D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	4500	6000	<10
OSMSDL2C1D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	2500	3500	<10
OSK5DL2C1D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	750	1200	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
08B5A22C1D	Blue	Water Clear	3.1	3.6	470	475	1200	2000	<10
08O3DA22C1D	Pure Green	Water Clear	3.1	3.6	525	535	4000	6000	<10
08V5HA22C1D	Violet	Water Clear	3.4	3.8	405	410	15	30	<10
08S5A22C1D	Red	Water Clear	2.1	2.4	625	630	800	1300	<10
08V5SA22C1D	Yellow	Water Clear	2.1	2.4	590	595	800	1300	<10
08O5SA22C1D	Orange	Water Clear	2.1	2.4	605	610	800	1300	<10
08S5CA22C1D	Red	Water Clear	2.1	2.4	624	629	1700	2500	<10
08V5CA22C1D	Yellow	Water Clear	2.1	2.4	590	595	1700	2500	<10
08O5GA22C1D	Orange	Water Clear	2.1	2.4	605	610	1700	2500	<10
08S5MA22C1D	Red	Water Clear	2.1	2.4	624	629	2300	3000	<10
08V5MA22C1D	Yellow	Water Clear	2.1	2.4	590	595	2300	3000	<10
08O5MA22C1D	Orange	Water Clear	2.1	2.4	605	610	2300	3000	<10

*2 See table for Luminous Intensity Ranks

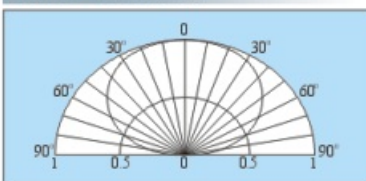
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Characters

- Viewing angle 140 deg

Directive Characteristics

Relative Luminous Intensity
Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{FP}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSWSDAZ4EID	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	3400	5000	<10
OSMSDAZ4EID	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	2300	3000	<10
OSKSDAZ4EID	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	570	800	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DLZ4E1D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	2600	4000	<10
OSMS5DLZ4E1D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	1800	2500	<10
OSK5DLZ4E1D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	480	650	<10

Electrical And Optical Characteristics (Ta=25°C)

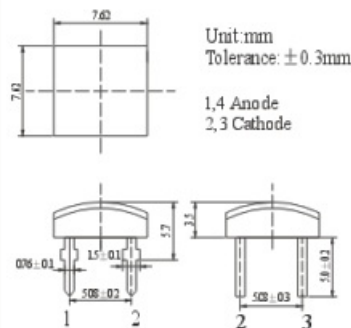
Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) ^{*3}		Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSB3SAZ4EID	Blue	Water Clear	3.1	3.6	470	475	650	900	<10
OSG3DAZ4EID	Pure Green	Water Clear	3.1	3.6	525	535	1800	3000	<10
OSV3HAZ4EID	Violet	Water Clear	3.4	3.8	405	410	15	30	<10
OSR3SAZ4EID	Red	Water Clear	2.1	2.4	625	630	500	800	<10
OSY3SAZ4EID	Yellow	Water Clear	2.1	2.4	590	595	500	800	<10
OSO3SAZ4EID	Orange	Water Clear	2.1	2.4	605	610	500	800	<10
OSR3CAZ4EID	Red	Water Clear	2.1	2.4	624	629	1200	2000	<10
OSY3CAZ4EID	Yellow	Water Clear	2.1	2.4	590	595	1200	2000	<10
OSO3GAZ4EID	Orange	Water Clear	2.1	2.4	605	610	1200	2000	<10
OSR3MAZ4EID	Red	Water Clear	2.1	2.4	624	629	1700	3000	<10
OSY3MAZ4EID	Yellow	Water Clear	2.1	2.4	590	595	1700	3000	<10
OSO3MAZ4EID	Orange	Water Clear	2.1	2.4	605	610	1700	3000	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

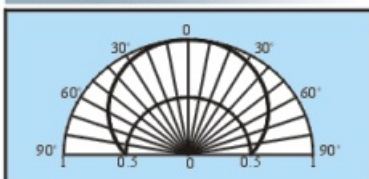
*5 Devices are sorted by 5nm wavelength ranges

Package Outlines
(Unit:mm)


Characters

- Viewing angle 180 deg

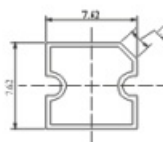
Directive Characteristics



Relative Luminous Intensity

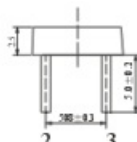
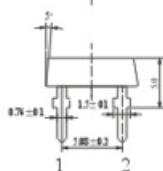
Package Outlines

(Unit:mm)



Unit:mm
Tolerance: $\pm 0.3\text{mm}$

1,4 Anode
2,3 Cathode



Note: 1,4 is Cathode For OSXXCX Series

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{OP}	-30~+85	-30~+85	°C
Storage Temperature	T_{STG}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*4				Luminous Intensity (mcd)*5		Reverse Current IR (μA)	
				X		Y					
				Working Current: IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSWSDAZ3KID	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	2300	3500	<10
OSMSDAZ3KID	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	1500	2000	<10
OSKSDAZ3KID	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	380	500	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*3				Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
				X		Y					
				Working Current: IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSWSDLZ3KID	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	1900	3000	<10
OSMSDLZ3KID	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	1200	1600	<10
OSKSDLZ3KID	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	320	450	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μA)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSBSAAZ3K1D	Blue	Water Clear	3.1	3.6	470	475	500	700	<10
OSGSAZ3K1D	Pure Green	Water Clear	3.1	3.6	525	535	1000	1500	<10
OSVSHAZ3K1D	Violet	Water Clear	3.4	3.8	405	410	10	20	<10
OSKSAZ3K1D	Red	Water Clear	2.1	2.4	625	630	200	400	<10
OSYSAZ3K1D	Yellow	Water Clear	2.1	2.4	590	595	200	400	<10
OSGSAZ3K1D	Orange	Water Clear	2.1	2.4	605	610	200	400	<10
OSKCAZ3K1D	Red	Water Clear	2.1	2.4	624	629	500	1000	<10
OSYCAZ3K1D	Yellow	Water Clear	2.1	2.4	590	595	500	1000	<10
OSGSAZ3K1D	Orange	Water Clear	2.1	2.4	605	610	500	1000	<10
OSKMAZ3K1D	Red	Water Clear	2.1	2.4	624	629	700	1500	<10
OSYMAZ3K1D	Yellow	Water Clear	2.1	2.4	590	595	700	1500	<10
OSGMAZ3K1D	Orange	Water Clear	2.1	2.4	605	610	700	1500	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

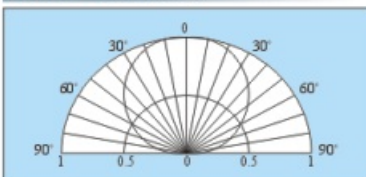
*5 Devices are sorted by 5nm wavelength ranges

Super Flux Full Color LED Series

Characters

- Viewing angle 120 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		G/B	R	
DC Forward Current	IF	30	50	mA
Pulse Forward Current	IFP	100*1	120*1	mA
Reverse Voltage	VR	5	5	V
Power Dissipation	PD	108	120	mW
Operating Temperature	Topr	-30~+85	-30~+85	°C
Storage Temperature	Tstg	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μA)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
08TBM423C1D	Red	Water Clear	2.1	2.4	624	629	2300	3000	<10
	Pure Green		3.1	3.6	525	535	4000	6000	<10
	Blue		3.1	3.6	470	475	1200	2000	<10
08TBM423C2D	Red	White Diffused	2.1	2.4	624	629	1200	2000	<10
	Pure Green		3.1	3.6	525	535	2000	4000	<10
	Blue		3.1	3.6	470	475	600	1000	<10

*2 See table for Luminous Intensity Ranks

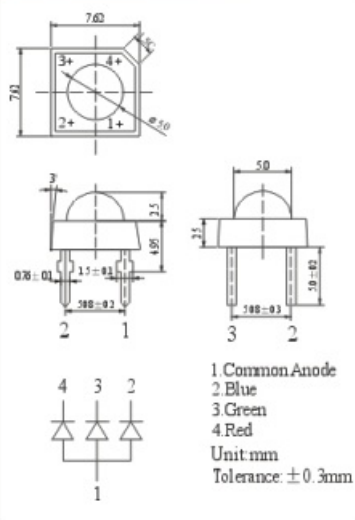
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)

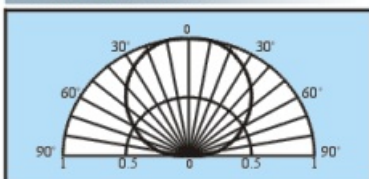


Top View SMD Mono-Color LED Series

Characters

- Viewing angle 120 deg

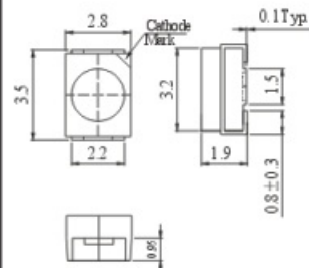
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Unit:mm

Tolerance: ±0.20mm

Note: Mark is Anode For OSXXPX Series

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{FP}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{op}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
				X		Y					
				Working Current: IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSWSDS1C1A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	1900	3000	<10
OSMSDS1C1A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	1250	2000	<10
OSKSDS1C1A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	380	600	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
				X		Y					
				Working Current: IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSWSDLS1C1A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	1900	3000	<10
OSMSDLS1C1A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	1250	2000	<10
OSKSDLS1C1A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	380	600	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μA)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSBSAS1C1A	Blue	Water Clear	3.1	3.6	470	475	400	600	<10
OSBDSAS1C1A	Blueish Green	Water Clear	3.1	3.6	505	510	900	1800	<10
OSGDSAS1C1A	Pure Green	Water Clear	3.1	3.6	525	535	900	1800	<10
OSKDSAS1C1A	Red	Water Clear	2.1	2.4	625	630	350	600	<10
OSYSAS1C1A	Yellow	Water Clear	2.1	2.4	590	595	350	600	<10
OSOSAS1C1A	Orange	Water Clear	2.1	2.4	605	610	350	600	<10
OSRTPAS1C1A	Red	Water Clear	2.1	2.4	624	629	700	1200	<10
OSYSPAS1C1A	Yellow	Water Clear	2.1	2.4	590	595	700	1200	<10
OSOGAS1C1A	Orange	Water Clear	2.1	2.4	605	610	700	1200	<10
OSRSMAS1C1A	Red	Water Clear	2.1	2.4	624	629	1000	1800	<10
OSYSMAS1C1A	Yellow	Water Clear	2.1	2.4	590	595	1000	1800	<10
OSOMAS1C1A	Orange	Water Clear	2.1	2.4	605	610	1000	1800	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

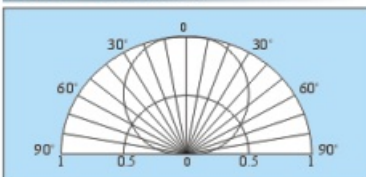
*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Characters

- Viewing angle 120 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		G/B	R/Y/YG	
DC Forward Current	IF	30	30	mA
Pulse Forward Current	IFP	100*1	100*1	mA
Reverse Voltage	VR	5	5	V
Power Dissipation	PD	108	72	mW
Operating Temperature	Topr	-30~+85	-30~+85	°C
Storage Temperature	Tstg	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
			Working Current:IF=20 mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
OSRGH4S2C1A	Red	Water Clear	2.1	2.4	625	630	150	250	<10	
	Yellow Green	Water Clear	2.1	2.4	570	575	60	100	<10	
OSRB4S2C1A	Red	Water Clear	2.1	2.4	625	630	150	250	<10	
	Blue	Water Clear	3.1	3.6	470	475	130	200	<10	
OSRPS4S2C1A	Red	Water Clear	2.1	2.4	625	630	300	500	<10	
	Pure Green	Water Clear	3.1	3.6	525	535	600	800	<10	
OSYGH4S2C1A	Yellow	Water Clear	2.1	2.4	590	595	170	250	<10	
	Yellow Green	Water Clear	2.1	2.4	570	575	50	100	<10	
OSYB4S2C1A	Yellow	Water Clear	2.1	2.4	590	595	600	900	<10	
	Blue	Water Clear	3.1	3.6	470	475	200	400	<10	
OSBPS4S2C1A	Blue	Water Clear	3.1	3.6	470	475	200	400	<10	
	Pure Green	Water Clear	3.1	3.6	525	535	600	800	<10	

*2 See table for Luminous Intensity Ranks

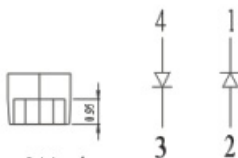
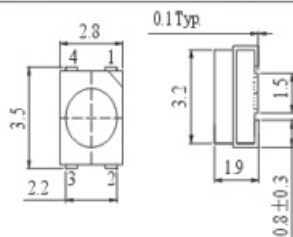
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



2,4 Anode
1,3 Cathode

Unit:mm

Tolerance: ±0.20mm

SMD

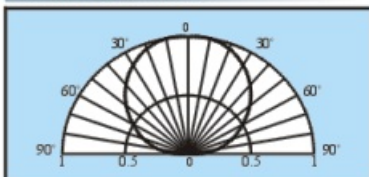
Top View SMD Full Color LED Series



Characters

- Viewing angle 120 deg

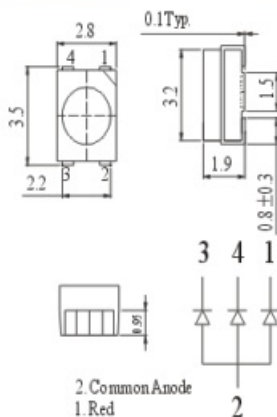
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



2 Common Anode

1 Red

4 Pure Green

3 Blue

Unit mm

Tolerance: $\pm 0.20\text{mm}$

Absolute Maximum Rating ($T_a=25^\circ\text{C}$)

Item	Symbol	Value		Unit
		G/B	R	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{FP}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40~+100	-40~+100	$^\circ\text{C}$

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
			Working Current:IF=20 mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
OSTBMAS2C1A	Red	Water Clear	2.1	2.4	624	629	1000	1800	<10	
	Pure Green		3.1	3.6	525	535	900	1800	<10	
	Blue		3.1	3.6	470	475	400	600	<10	
OSTBMAS2C2A	Red	White Diffused	2.1	2.4	624	629	500	1000	<10	
	Pure Green		3.1	3.6	525	535	450	900	<10	
	Blue		3.1	3.6	470	475	200	400	<10	

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

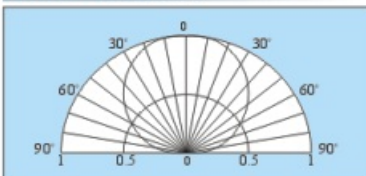
*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Characters

- Viewing angle 120 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y	
DC Forward Current	I_F	25	30	mA
Pulse Forward Current	I_{PF}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	90	72	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μ A)	
					X		Y					
			Working Current:IF= 60 mA									
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.		
OSWSDTS4C1A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	7000	9000	<10	
OSMSDTS4C1A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	5050	8000	<10	
OSKSDTS4C1A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	1900	3000	<10	

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)	
			Working Current:IF=60 mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
OSB5ST34C1A	Blue	Water Clear	3.1	3.6	470	475	1500	2000	<10	
OSG3DT34C1A	Bluish Green	Water Clear	3.1	3.6	500	510	3000	5000	<10	
OSG5DT34C1A	Pure Green	Water Clear	3.1	3.6	525	535	3000	5000	<10	
OSR5PT34C1A	Red	Water Clear	2.1	2.4	624	629	1800	3000	<10	
OSY3PT34C1A	Yellow	Water Clear	2.1	2.4	590	595	1800	3000	<10	
OSG5GT34C1A	Orange	Water Clear	2.1	2.4	605	610	1800	3000	<10	
OSR5MT34C1A	Red	Water Clear	2.1	2.4	624	629	3000	5000	<10	
OSY5MT34C1A	Yellow	Water Clear	2.1	2.4	590	595	3000	5000	<10	
OSG5MT34C1A	Orange	Water Clear	2.1	2.4	605	610	3000	5000	<10	

*2 See table for Luminous Intensity Ranks

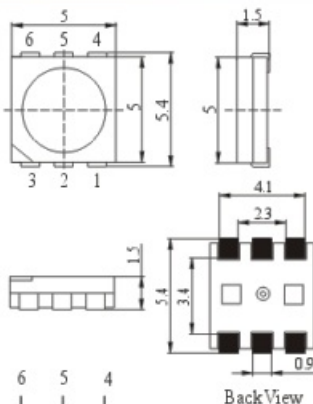
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



Back View

1,2,3 Anode
4,5,6 Cathode
Unit: mm
Tolerance: ±0.20

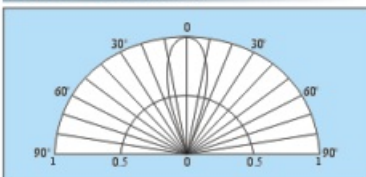
SMD

Sign LED Series

Characters

- Viewing angle 30 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		G	R/V	
DC Forward Current	I _F	30	50	mA
Pulse Forward Current	I _{PF}	100*1	120*1	mA
Reverse Voltage	V _R	5	5	V
Power Dissipation	P _D	108	120	mW
Operating Temperature	T _{opr}	-30~+85	-30~+85	°C
Storage Temperature	T _{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)		
			Working Current:IF=20 mA								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
08GDA5C31C	Bluish Green	Water Clear	3.1	3.6	505	510	14000	18000	<10		
08RSPA5C31C	Red	Water Clear	2.1	2.4	624	629	6000	9000	<10		
08YSPA5C31C	Yellow	Water Clear	2.1	2.4	590	595	6000	9000	<10		
08RMA5C31C	Red	Water Clear	2.1	2.4	624	629	8000	12000	<10		
08YMA5C31C	Yellow	Water Clear	2.1	2.4	590	595	8000	12000	<10		

*2 See table for Luminous Intensity Ranks

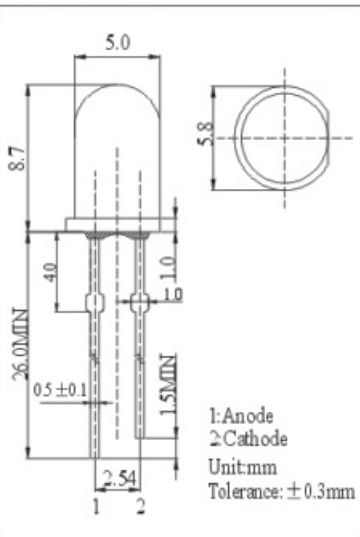
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

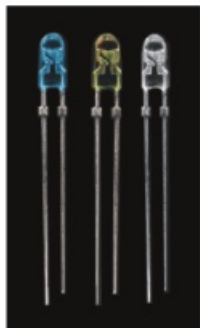
*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



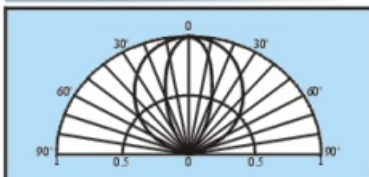
Round



Characters

- Viewing angle 100/40 deg

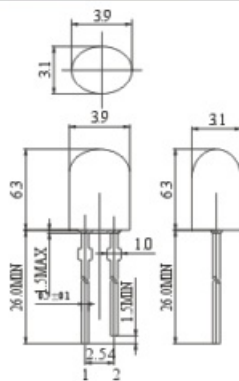
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



- Anode
- Cathode

Unit:mm
Tolerance: ±0.3mm

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/G/B	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{op}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
				X		Y					
				Working Current:IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
06W5DA3A1D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	5300	8000	<10
06M5DA3A1D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	3150	5000	<10
06K5DA3A1D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	600	900	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
				X		Y					
				Working Current: IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
06W5DL43A1D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	4300	6000	<10
06M5DL43A1D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	2500	4000	<10
06K5DL43A1D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	460	800	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
06B5SA43A1D	Blue	Water Clear	3.1	3.6	470	475	600	900	<10
06G5DA43A1D	Pure Green	Water Clear	3.1	3.6	525	535	3500	5000	<10
06V5HA43A1D	Violet	Water Clear	3.4	3.8	405	410	80	120	<10
06R5SA43A1D	Red	Water Clear	2.1	2.4	625	630	700	1000	<10
06Y5SA43A1D	Yellow	Water Clear	2.1	2.4	590	595	700	1000	<10
06O5SA43A1D	Orange	Water Clear	2.1	2.4	605	610	700	1000	<10
06R5PA43A1D	Red	Water Clear	2.1	2.4	624	629	1800	2500	<10
06Y5PA43A1D	Yellow	Water Clear	2.1	2.4	590	595	1800	2500	<10
06O5GA43A1D	Orange	Water Clear	2.1	2.4	605	610	1800	2500	<10
06R5MA43A1D	Red	Water Clear	2.1	2.4	624	629	2500	4000	<10
06Y5MA43A1D	Yellow	Water Clear	2.1	2.4	590	595	2500	4000	<10
06O5MA43A1D	Orange	Water Clear	2.1	2.4	605	610	2500	4000	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

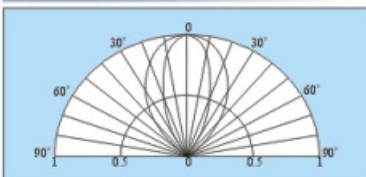
*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Characters

- Viewing angle 40/70 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
06W3DA4571D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	6550	9000	<10
06M3DA4571D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	3800	5000	<10
06K3DA4571D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	760	1000	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{#2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{#4}				Luminous Intensity (mcd) ^{#3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
06W5DL4571D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	5300	8000	<10
06M5DL4571D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	3000	5000	<10
06K5DL4571D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	600	800	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) ^{*3}		Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
06B3SA4571D	Blue	Water Clear	3.1	3.6	470	475	800	1200	<10
06G3DA4571D	Pure Green	Water Clear	3.1	3.6	525	535	6000	9000	<10
06V3LA4571D	Violet	Water Clear	3.4	3.8	405	410	50	80	<10
06R3SA4571D	Red	Water Clear	2.1	2.4	625	630	1200	2000	<10
06Y3SA4571D	Yellow	Water Clear	2.1	2.4	590	595	1200	2000	<10
06O3SA4571D	Orange	Water Clear	2.1	2.4	605	610	1200	2000	<10
06R3PA4571D	Red	Water Clear	2.1	2.4	624	629	2500	4000	<10
06Y3PA4571D	Yellow	Water Clear	2.1	2.4	590	595	2500	4000	<10
06O3QA4571D	Orange	Water Clear	2.1	2.4	605	610	2500	4000	<10
06K3MA4571D	Red	Water Clear	2.1	2.4	624	629	3500	5000	<10
06Y3MA4571D	Yellow	Water Clear	2.1	2.4	590	595	3500	5000	<10
06O3MA4571D	Orange	Water Clear	2.1	2.4	605	610	3500	5000	<10

*2 See table for Luminous Intensity Ranks

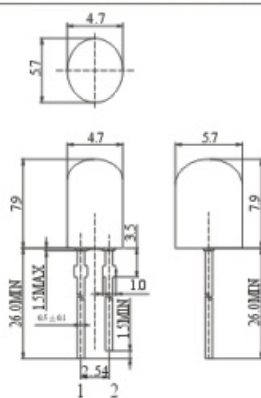
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



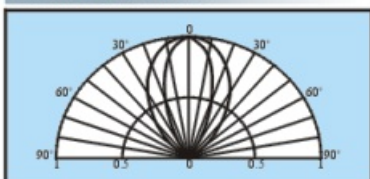
1. Anode
2. Cathode
Unit:mm
Tolerance: ±0.3mm



Characters

- Viewing angle 70/40 deg

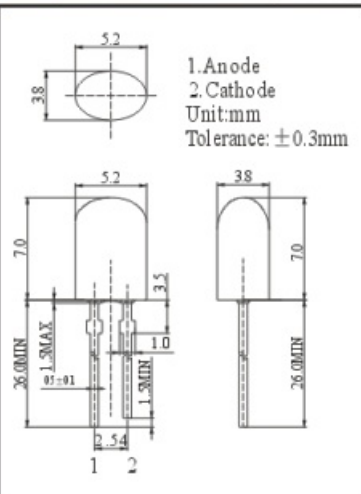
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{OP}	-30~+85	-30~+85	°C
Storage Temperature	T_{STG}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
				X		Y					
				Working Current: IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
06W3DA571LD	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	11500	15000	<10
06M3DA571LD	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	7550	10000	<10
08K3DA571LD	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	1900	3000	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
				X		Y					
				Working Current: IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
06W3DL571D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	9000	12000	<10
06M3DL571D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	6000	8000	<10
08K3DL571D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	1500	2500	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μA)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
08B3SA571D	Blue	Water Clear	3.1	3.6	470	475	1000	1500	<10
08G3DA571D	Pure Green	Water Clear	3.1	3.6	525	535	10000	15000	<10
08V3HA571D	Violet	Water Clear	3.4	3.8	405	410	65	100	<10
08R3SA571D	Red	Water Clear	2.1	2.4	625	630	1500	2500	<10
08Y3SA571D	Yellow	Water Clear	2.1	2.4	590	595	1500	2500	<10
08O3SA571D	Orange	Water Clear	2.1	2.4	605	610	1500	2500	<10
08R3PA571D	Red	Water Clear	2.1	2.4	624	629	3000	4500	<10
08Y3PA571D	Yellow	Water Clear	2.1	2.4	590	595	3000	4500	<10
08O3GA571D	Orange	Water Clear	2.1	2.4	605	610	3000	4500	<10
08R3MA571D	Red	Water Clear	2.1	2.4	624	629	4200	6000	<10
08Y3MA571D	Yellow	Water Clear	2.1	2.4	590	595	4200	6000	<10
08O3MA571D	Orange	Water Clear	2.1	2.4	605	610	4200	6000	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

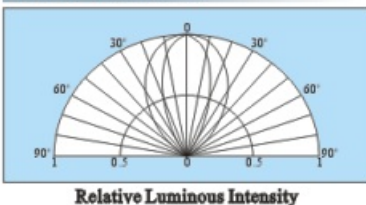
*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Characters

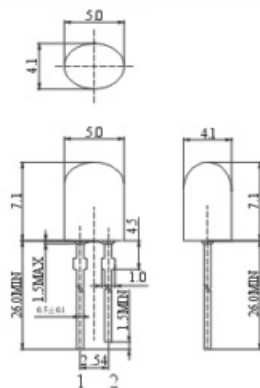
- Viewing angle 70/40 deg

Directive Characteristics



Package Outlines

(Unit:mm)



1 Anode
2 Cathode
Unit:mm
Tolerance: $\pm 0.3\text{mm}$

Absolute Maximum Rating ($T_a=25^\circ\text{C}$)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{OP}	$-30 \sim +85$	$-30 \sim +85$	$^\circ\text{C}$
Storage Temperature	T_{STG}	$-40 \sim +100$	$-40 \sim +100$	$^\circ\text{C}$

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DA5471D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	15000	20000	<10
OSM5DA5471D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	8000	12000	<10
OSK5DA5471D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	1750	3000	<10

Low Decay Type Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μ A)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DL5471D	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	12000	15000	<10
OSM5DL5471D	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	7000	10000	<10
OSK5DL5471D	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	1400	2500	<10

Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength $\lambda_d(\text{nm})$ ^{*2}		Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSB5SA5471D	Blue	Water Clear	3.1	3.6	470	475	1800	3000	<10
OSG5DA5471D	Pure Green	Water Clear	3.1	3.6	525	535	12000	15000	<10
OSV5SA5471D	Violet	Water Clear	3.4	3.8	405	410	75	120	<10
OSR5DA5471D	Red	Water Clear	2.1	2.4	625	630	2500	5000	<10
OSY3SA5471D	Yellow	Water Clear	2.1	2.4	590	595	2500	5000	<10
OSG5SA5471D	Orange	Water Clear	2.1	2.4	605	610	2500	5000	<10
OSR5PA5471D	Red	Water Clear	2.1	2.4	624	629	5000	8000	<10
OSY5PA5471D	Yellow	Water Clear	2.1	2.4	590	595	5000	8000	<10
OSG5GA5471D	Orange	Water Clear	2.1	2.4	605	610	5000	8000	<10
OSR5MA5471D	Red	Water Clear	2.1	2.4	624	629	7000	10000	<10
OSY5MA5471D	Yellow	Water Clear	2.1	2.4	590	595	7000	10000	<10
OSG5MA5471D	Orange	Water Clear	2.1	2.4	605	610	7000	10000	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

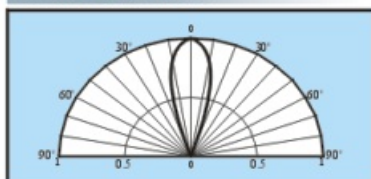
Φ3 Mono-Color Flashing LED Series



Characters

- Viewing angle 30 deg

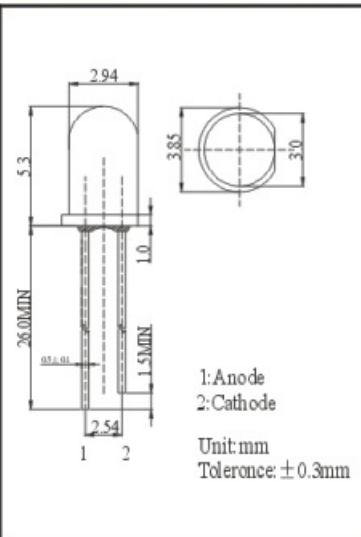
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Absolute Maximum Rating ($T_a=25^\circ\text{C}$)

Item	Symbol	Value		Unit
		B/G	R/Y/O	
Frequency	F	1.8	1.8	Hz
Power Supply	V	4.5	4.5	V
Operating Temperature	Topr	-30~+85	-30~+85	$^\circ\text{C}$
Storage Temperature	Tstg	-40~+100	-40~+100	$^\circ\text{C}$

Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) *3		Luminous Intensity (mcd) *3		Reverse Current IR (μ A)		
			Working Current:IF=20 mA								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
OSB5S83131A	Blue	Water Clear	3.3	4.5	470	475	2200	5000	<10		
OSG3D83131A	Bluish Green	Water Clear	3.3	4.5	505	510	7000	10000	<10		
OSG5D83131A	Pure Green	Water Clear	3.3	4.5	525	535	7000	10000	<10		
OSR5S83131A	Red	Water Clear	3.3	4.5	625	630	2000	3500	<10		
OSY5S83131A	Yellow	Water Clear	3.3	4.5	590	595	2000	3500	<10		
OSO5S83131A	Orange	Water Clear	3.3	4.5	605	610	2000	3500	<10		
OSO5Q83131A	Orange	Water Clear	3.3	4.5	605	610	3500	5000	<10		
OSR5M83131A	Red	Water Clear	3.3	4.5	624	629	5000	8000	<10		
OSY5M83131A	Yellow	Water Clear	3.3	4.5	590	595	5000	8000	<10		
OSO5M83131A	Orange	Water Clear	3.3	4.5	605	610	5000	8000	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

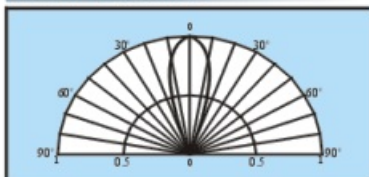
*5 Devices are sorted by 5nm wavelength ranges

Φ5 Mono-Color Flashing LED Series

Characters

- Viewing angle 30 deg

Directive Characteristics



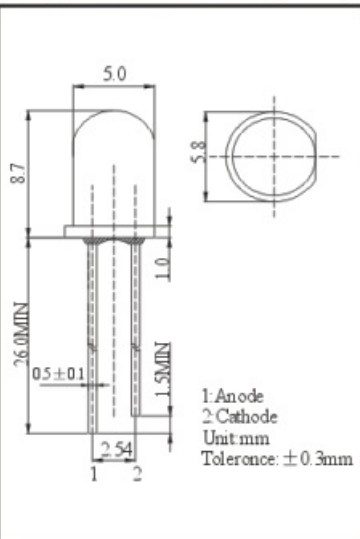
Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		B/G	R/Y/O	
Frequency	F	1.8	1.8	Hz
Power Supply	V	4.5	4.5	V
Operating Temperature	T _{opr}	-30~+85	-30~+85	°C
Storage Temperature	T _{stg}	-40~+100	-40~+100	°C

Package Outlines

(Unit:mm)



Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) *5		Luminous Intensity (mcd) *3		Reverse Current IR (μA)		
			Working Current:IF=20 mA								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
08B5885A31A	Blue	Water Clear	3.3	4.5	470	475	2500	5000	<10		
08G3D85A31A	Bluish Green	Water Clear	3.3	4.5	505	510	15000	20000	<10		
08G3D85A31A	Pure Green	Water Clear	3.3	4.5	525	535	15000	20000	<10		
08R5885A31A	Red	Water Clear	3.3	4.5	625	630	2500	4000	<10		
08Y5885A31A	Yellow	Water Clear	3.3	4.5	590	595	2500	4000	<10		
08O5885A31A	Orange	Water Clear	3.3	4.5	605	610	2500	4000	<10		
08O5885A31A	Orange	Water Clear	3.3	4.5	605	610	4500	6000	<10		
08R5885A31A	Red	Water Clear	3.3	4.5	624	629	6500	8000	<10		
08Y5885A31A	Yellow	Water Clear	3.3	4.5	590	595	6500	8000	<10		
08O5885A31A	Orange	Water Clear	3.3	4.5	605	610	6500	8000	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

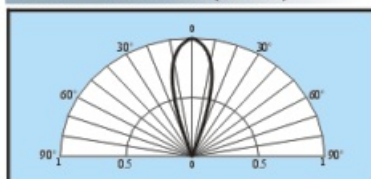
Φ5 Bi-Color Flashing LED Series



Characters

- Viewing angle 30 deg

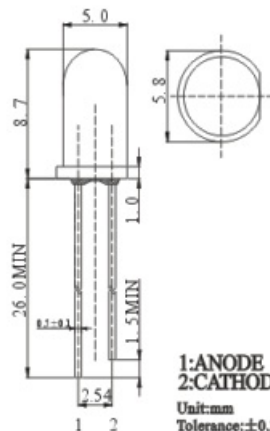
Directive Characteristics (Ta=25°C)



Relative Luminous Intensity

Package Outlines

(Unit:mm)



1:ANODE
2:CATHODE

Unit:mm
Tolerance:±0.3mm

Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Value		Unit
		B/G	R/Y/O	
Frequency	F	1.8	1.8	Hz
Power Supply	V	4.5	4.5	V
Operating Temperature	Topr	-30~+85	-30~+85	°C
Storage Temperature	Tstg	-40~+100	-40~+100	°C

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF(V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)	
			Working Current:IF=20mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
OSRGHS5A31A	Red	Water Clear	3.3	4.5	625	630	800	1000	<10	
	Yellow Green	Water Clear	3.3	4.5	570	575	500	800	<10	
OSRBHS5A31A	Red	Water Clear	3.3	4.5	625	630	800	1000	<10	
	Blue	Water Clear	3.3	4.5	470	475	1200	2000	<10	
OSRPM5A31A	Red	Water Clear	3.3	4.5	624	629	8000	10000	<10	
	Pure Green	Water Clear	3.3	4.5	525	535	8000	10000	<10	
OSYGH5A31A	Yellow	Water Clear	3.3	4.5	590	595	800	1000	<10	
	Yellow Green	Water Clear	3.3	4.5	570	575	500	800	<10	
OSYPM5A31A	Yellow	Water Clear	3.3	4.5	590	595	8000	10000	<10	
	Pure Green	Water Clear	3.3	4.5	525	535	8000	10000	<10	
OSYBM5A31A	Yellow	Water Clear	3.3	4.5	590	595	8000	10000	<10	
	Blue	Water Clear	3.3	4.5	470	475	4000	6000	<10	
OSOGHS5A31A	Orange	Water Clear	3.3	4.5	605	610	800	1000	<10	
	Yellow Green	Water Clear	3.3	4.5	570	575	500	800	<10	

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

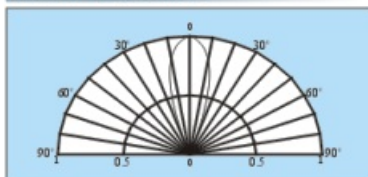
*5 Devices are sorted by 5nm wavelength ranges

Φ5 Full Color Flashing LED Series

Characters

- Viewing angle 30 deg

Directive Characteristics



Relative Luminous Intensity

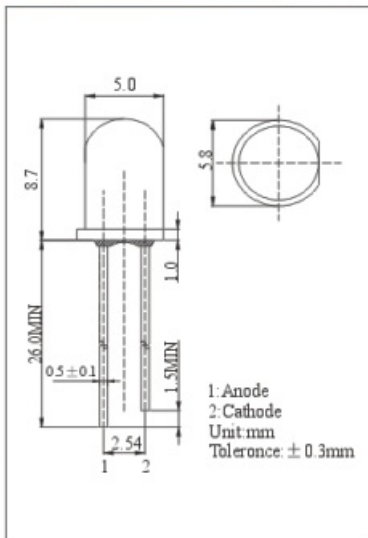
Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		OSTIMA	OSTIMC	
Frequency	f	33	12	S
Power Supply	V	5	5	V
Operating Temperature	T _{opr}	-30~+85	-30~+85	°C
Storage Temperature	T _{stg}	-40~+100	-40~+100	°C

• 1 Duty 1/10 Pulse Width 10 ms

Package Outlines

(Unit:mm)



Round

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) *5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)	
			Working Current:IF=20 mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
OSTIMA5A31A	Red	Water Clear	4.5	5.0	624	629	8000	10000	<10	
	Blue		4.5	5.0	470	475	4000	6000	<10	
	Pure Green		4.5	5.0	525	535	8000	10000	<10	
OSTIMA5A32A	Red	White Diffused	4.5	5.0	624	629	4000	6000	<10	
	Blue		4.5	5.0	470	475	2000	4000	<10	
	Pure Green		4.5	5.0	525	535	4000	6000	<10	

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) *5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)	
			Working Current:IF=20 mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
OSTIMC5A31A	Red	Water Clear	4.5	5.0	624	629	8000	10000	<10	
	Blue		4.5	5.0	470	475	4000	6000	<10	
	Pure Green		4.5	5.0	525	535	8000	10000	<10	
OSTIMC5A32A	Red	White Diffused	4.5	5.0	624	629	4000	6000	<10	
	Blue		4.5	5.0	470	475	2000	4000	<10	
	Pure Green		4.5	5.0	525	535	4000	6000	<10	

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

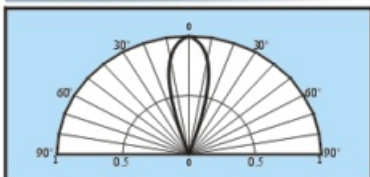
*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Characters

● Viewing angle 30 deg

Directive Characteristics



Relative Luminous Intensity

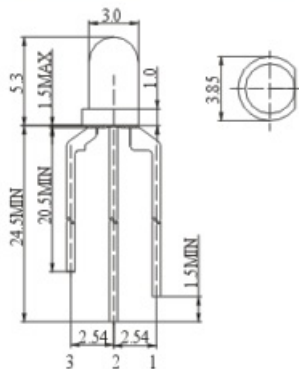
Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		B	R/Y	
DC Forward Current	I _F	30	30	mA
Pulse Forward Current	I _{FP}	100 ^{*1}	100 ^{*1}	mA
Reverse Voltage	V _R	5	5	V
Power Dissipation	P _D	108	72	mW
Operating Temperature	T _{OPR}	-30~+85	-30~+85	°C
Storage Temperature	T _{STG}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Package Outlines

(Unit: nm)



2. Common Cathode

1.3. Anode

Unit:mm

Tolerance: $\pm 0.30\text{mm}$

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μA)		
			Working Current:IF=20 mA								
			Typ.	Max.	Typ.	Max.	Typ.	Max.			
OSRGHC3131A	Red	Water Clear	2.1	2.4	625	630	1100	1800	<10		
	Yellow Green		2.1	2.4	570	575	800	1200	<10		
OSRBCM3131A	Red	Water Clear	2.1	2.4	624	629	6500	8000	<10		
	Blue		3.1	3.6	470	475	3000	5000	<10		
OSYGH3131A	Yellow	Water Clear	2.1	2.4	590	595	1100	1800	<10		
	Yellow Green		2.1	2.4	570	575	800	1200	<10		
OSRGHC3132A	Red	White Diffused	2.1	2.4	625	630	550	900	<10		
	Yellow Green		2.1	2.4	570	575	400	600	<10		
OSRBCM3132A	Red	White Diffused	2.1	2.4	624	629	3300	4500	<10		
	Blue		3.1	3.6	470	475	1500	2200	<10		
OSYGH3132A	Yellow	White Diffused	2.1	2.4	590	595	550	900	<10		
	Yellow Green		2.1	2.4	570	575	400	600	<10		

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

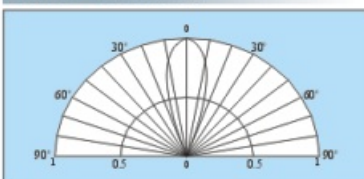
*5 Devices are sorted by 5nm wavelength ranges

Bi-Color/ $\Phi 5$ LED Series

Characters

- Viewing angle 30 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Value		Unit
		B	R/Y/YG	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	72	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~+100	-40~+100	$^{\circ}\text{C}$

*1 Duty 1/10 Pulse Width 10 ms

Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)	
			Working Current:IF=20 mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
OSRGHCSB31A	Red	Water Clear	2.1	2.4	625	630	1500	2200	<10	
	Yellow Green		2.1	2.4	570	575	1100	1800	<10	
OSRBMCSB31A	Red	Water Clear	2.1	2.4	624	629	8500	12000	<10	
	Blue		3.1	3.6	470	475	4000	6000	<10	
OSYGHCSB31A	Yellow	Water Clear	2.1	2.4	590	595	1500	2200	<10	
	Yellow Green		2.1	2.4	570	575	1100	1800	<10	
OSRGHCSB32A	Red	White Diffused	2.1	2.4	625	630	750	1200	<10	
	Yellow Green		2.1	2.4	570	575	550	900	<10	
OSRBMCSB32A	Red	White Diffused	2.1	2.4	624	629	4200	6500	<10	
	Blue		3.1	3.6	470	475	2000	3500	<10	
OSYGHCSB32A	Yellow	White Diffused	2.1	2.4	590	595	750	1200	<10	
	Yellow Green		2.1	2.4	570	575	550	900	<10	

*2 See table for Luminous Intensity Ranks

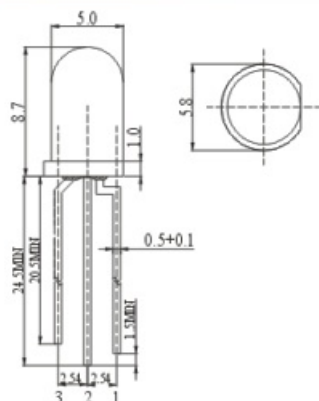
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



2,Common Cathode

1,3 Anode

Unit:mm

Tolerance: $\pm 0.30\text{mm}$

Round

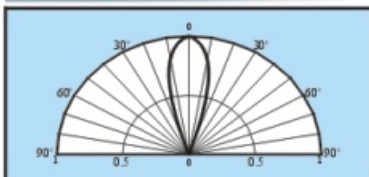
Φ5 Full Color LED Series



Characters

- Viewing angle 30 deg

Directive Characteristics



Relative Luminous Intensity

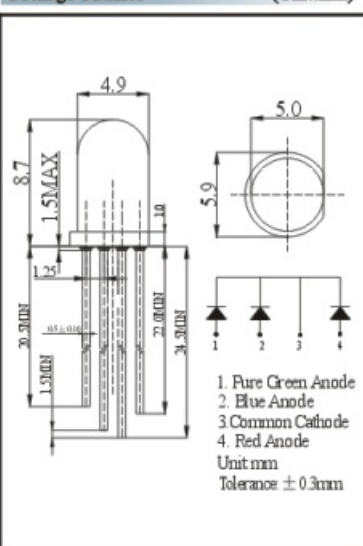
Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		G/B	R	
DC Forward Current	IF	30	50	mA
Pulse Forward Current	IFP	100*1	120*1	mA
Reverse Voltage	VR	5	5	V
Power Dissipation	PD	108	120	mW
Operating Temperature	T _{opr}	-30~+85	-30~+85	°C
Storage Temperature	T _{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Package Outlines

(Unit:mm)



Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) *5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
08TAMASB31A	Red	Water Clear	2.1	2.4	624	629	8500	12000	<10
	Blue		3.1	3.6	470	475	4000	6000	<10
	Pure Green		3.1	3.6	525	535	8500	12000	<10
08TAMASB32A	Red	White Diffused	2.1	2.4	624	629	4200	6500	<10
	Blue		3.1	3.6	470	475	2000	3500	<10
	Pure Green		3.1	3.6	525	535	4200	6500	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

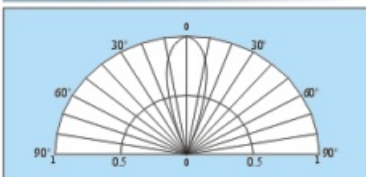
*5 Devices are sorted by 5nm wavelength ranges

Mono-Color/ $\Phi 1.8$ LED Series

Characters

- Viewing angle 30 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW3DA7331A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	3800	6000	<10
OSM3DA7331A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	2000	3000	<10
OSK3DA7331A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	500	700	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DL7331A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	3000	5000	<10
OSM5DL7331A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	1600	2500	<10
OSK5DL7331A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	400	600	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) ^{*3}		Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSB3SA7331A	Blue	Water Clear	3.1	3.6	470	475	800	1000	<10
OSG3DA7331A	Pure Green	Water Clear	3.1	3.6	525	535	2500	3500	<10
OSV3HA7331A	Violet	Water Clear	3.4	3.8	405	410	60	120	<10
OSR3SA7331A	Red	Water Clear	2.1	2.4	625	630	1500	3500	<10
OSY3SA7331A	Yellow	Water Clear	2.1	2.4	590	595	1500	3500	<10
OSO3SA7331A	Orange	Water Clear	2.1	2.4	605	610	1500	3500	<10
OSR3PA7331A	Red	Water Clear	2.1	2.4	624	629	2800	5000	<10
OSY3PA7331A	Yellow	Water Clear	2.1	2.4	590	595	2800	5000	<10
OSO3QA7331A	Orange	Water Clear	2.1	2.4	605	610	2800	5000	<10
OSR3MA7331A	Red	Water Clear	2.1	2.4	624	629	4000	6000	<10
OSY3MA7331A	Yellow	Water Clear	2.1	2.4	590	595	4000	6000	<10
OSO3MA7331A	Orange	Water Clear	2.1	2.4	605	610	4000	6000	<10

*2 See table for Luminous Intensity Ranks

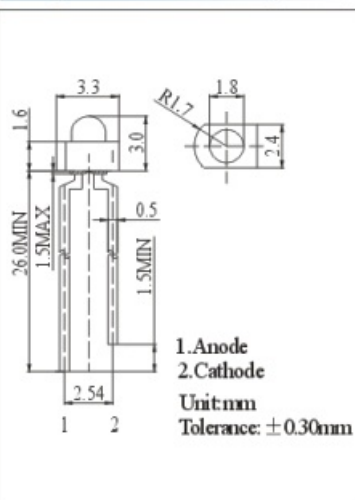
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



1. Anode

2. Cathode

Unit:mm

Tolerance: ±0.30mm

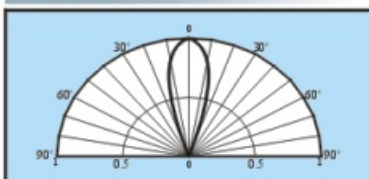
Round



Characters

- Viewing angle 30 deg

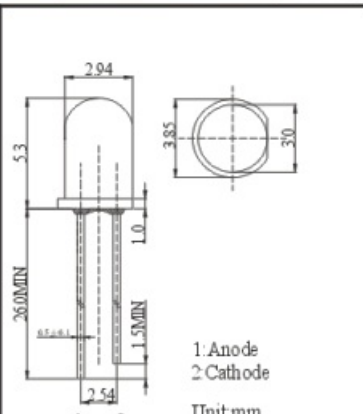
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



- Anode
- Cathode

Unit:mm

Tolerance: $\pm 0.30\text{mm}$

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{op}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
				X		Y					
				Working Current:IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
06W5DA3131A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	13000	18000	<10
06M5DA3131A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	7500	10000	<10
06K5DA3131A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	1900	2500	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					X		Y				
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
Working Current:IF=20 mA											
06W5DL3131A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	10000	15000	<10
06M5DL3131A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	6000	8000	<10
06K5DL3131A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	1500	2000	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
06B5SA3131A	Blue	Water Clear	3.1	3.6	470	475	5500	8000	<10
06G5DA3131A	Pure Green	Water Clear	3.1	3.6	525	535	10000	15000	<10
06V5HA3131A	Violet	Water Clear	3.4	3.8	405	410	100	200	<10
06R5SA3131A	Red	Water Clear	2.1	2.4	625	630	2500	4000	<10
06Y5SA3131A	Yellow	Water Clear	2.1	2.4	590	595	2500	4000	<10
06O5SA3131A	Orange	Water Clear	2.1	2.4	605	610	2500	4000	<10
06R5PA3131A	Red	Water Clear	2.1	2.4	624	629	5000	8000	<10
06Y5PA3131A	Yellow	Water Clear	2.1	2.4	590	595	5000	8000	<10
06O5GA3131A	Orange	Water Clear	2.1	2.4	605	610	5000	8000	<10
06R5MA3131A	Red	Water Clear	2.1	2.4	624	629	8000	12000	<10
06Y5MA3131A	Yellow	Water Clear	2.1	2.4	590	595	8000	12000	<10
06O5MA3131A	Orange	Water Clear	2.1	2.4	605	610	8000	12000	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

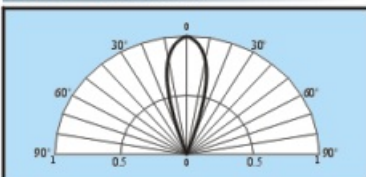
*5 Devices are sorted by 5nm wavelength ranges

Mono-Color/ $\Phi 4$ LED Series

Characters

- Viewing angle 30 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{FP}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~+100	-40~+100	$^{\circ}\text{C}$

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
05W3DA4131A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	16000	20000	<10
06M3DA4131A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	9000	12000	<10
08K3DA4131A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	2300	3000	<10

Low Decay Type Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current: IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
05W3DL4131A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	14000	18000	<10
06M3DL4131A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	7300	9000	<10
08K3DL4131A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	1800	2500	<10

Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μA)
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
08B3SA4131A	Blue	Water Clear	3.1	3.6	470	475	6300	10000	<10
08G3DA4131A	Pure Green	Water Clear	3.1	3.6	525	535	12000	15000	<10
08V3HA4131A	Violet	Water Clear	3.4	3.8	405	410	120	200	<10
08R3SA4131A	Red	Water Clear	2.1	2.4	625	630	15000	5000	<10
08Y3SA4131A	Yellow	Water Clear	2.1	2.4	590	595	3500	5000	<10
08O3SA4131A	Orange	Water Clear	2.1	2.4	605	610	3500	5000	<10
08E3PA4131A	Red	Water Clear	2.1	2.4	624	629	7000	10000	<10
08Y3PA4131A	Yellow	Water Clear	2.1	2.4	590	595	7000	10000	<10
08O3QA4131A	Orange	Water Clear	2.1	2.4	605	610	7000	10000	<10
08K3MA4131A	Red	Water Clear	2.1	2.4	624	629	10000	15000	<10
08Y3MA4131A	Yellow	Water Clear	2.1	2.4	590	595	10000	15000	<10
08O3MA4131A	Orange	Water Clear	2.1	2.4	605	610	10000	15000	<10

*2 See table for Luminous Intensity Ranks

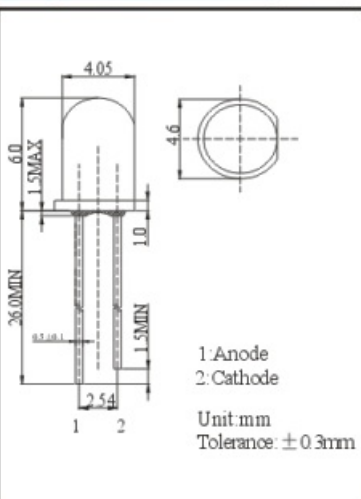
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



1: Anode
2: Cathode

Unit:mm
Tolerance: $\pm 0.3\text{mm}$

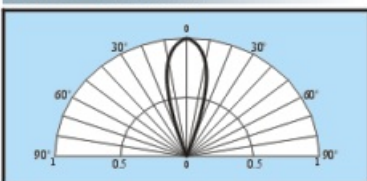
Round

Mono-Color/ $\Phi 8$ LED Series

Characters

- Viewing angle 30 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Value		Unit
		G/B/W	R/Y	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~+100	-40~+100	$^{\circ}\text{C}$

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DA131A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	22500	28000	<10
OSM5DA131A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	11500	15000	<10
OSK5DA131A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	2650	4000	<10

Low Decay Type Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DL131A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	18000	24000	<10
OSM5DL131A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	9000	12000	<10
OSK5DL131A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	2150	3000	<10

Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) ^{*3}		Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSB5SA131A	Blue	Water Clear	3.1	3.6	470	475	5200	8000	<10
OSG5SA131A	Pure Green	Water Clear	3.1	3.6	525	535	20000	25000	<10
OSV5SA131A	Violet	Water Clear	3.4	3.8	405	410	150	300	<10
OSR5SA131A	Red	Water Clear	2.1	2.4	625	630	4000	6000	<10
OSY5SA131A	Yellow	Water Clear	2.1	2.4	590	595	4000	6000	<10
OSO5SA131A	Orange	Water Clear	2.1	2.4	605	610	4000	6000	<10
OSK5SA131A	Red	Water Clear	2.1	2.4	624	629	9000	12000	<10
OSY5SA131A	Yellow	Water Clear	2.1	2.4	590	595	9000	12000	<10
OSO5SA131A	Orange	Water Clear	2.1	2.4	605	610	9000	12000	<10
OSK5MA131A	Red	Water Clear	2.1	2.4	624	629	13000	18000	<10
OSY5MA131A	Yellow	Water Clear	2.1	2.4	590	595	13000	18000	<10
OSO5MA131A	Orange	Water Clear	2.1	2.4	605	610	13000	18000	<10

*2 See table for Luminous Intensity Ranks

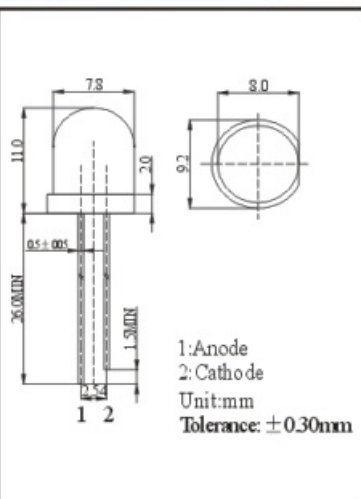
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



1: Anode
2: Cathode
Unit:mm
Tolerance: $\pm 0.30\text{mm}$

Round

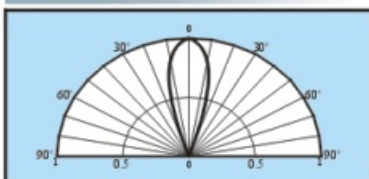
Mono-Color/ $\Phi 10$ LED Series



Characters

- Viewing angle 30 deg

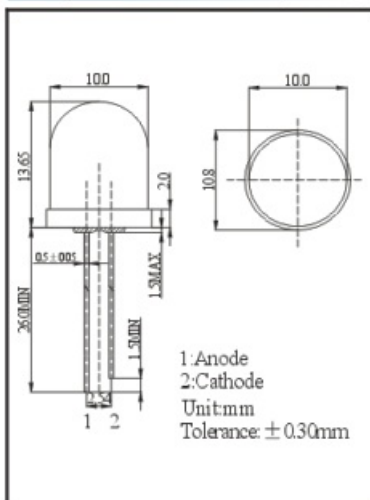
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*4				Luminous Intensity (mcd)*5		Reverse Current IR (μA)	
				X		Y					
				Working Current:IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
06W5DAA131A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	22500	28000	<10
06MSDAA131A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	11500	15000	<10
06K5DAA131A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	2650	4000	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*3				Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					X		Y				
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
06W5DLA131A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	18000	25000	<10
06MSDLA131A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	9000	12000	<10
06K5DLA131A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	2000	3000	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μA)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
06B5SAA131A	Blue	Water Clear	3.1	3.6	470	475	5500	8000	<10
06G5DAA131A	Pure Green	Water Clear	3.1	3.6	525	535	21000	25000	<10
06V5HAA131A	Violet	Water Clear	3.4	3.8	405	410	180	300	<10
06R5SAA131A	Red	Water Clear	2.1	2.4	625	630	6000	9000	<10
06Y5SAA131A	Yellow	Water Clear	2.1	2.4	590	595	6000	9000	<10
06O5SAA131A	Orange	Water Clear	2.1	2.4	605	610	6000	9000	<10
06R5FAA131A	Red	Water Clear	2.1	2.4	624	629	12000	18000	<10
06Y5FAA131A	Yellow	Water Clear	2.1	2.4	590	595	12000	18000	<10
06O5GAA131A	Orange	Water Clear	2.1	2.4	605	610	12000	18000	<10
06R5MAA131A	Red	Water Clear	2.1	2.4	624	629	17000	25000	<10
06Y5MAA131A	Yellow	Water Clear	2.1	2.4	590	595	17000	25000	<10
06O5MAA131A	Orange	Water Clear	2.1	2.4	605	610	17000	25000	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

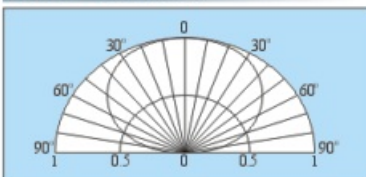
*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Characters

- Viewing angle 140 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{FP}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
08W5DA57E1A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	1900	3000	<10
08MSDA57E1A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	900	1500	<10
08K5DA57E1A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	250	600	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
08W5DL57E1A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	1500	2500	<10
08MSDL57E1A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	700	1200	<10
08K5DL57E1A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	200	400	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (≧ A)	
			Working Current:IF=20 mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
08B5SA57E1A	Blue	Water Clear	3.1	3.6	470	475	300	500	<10	
08G5DA57E1A	Pure Green	Water Clear	3.1	3.6	525	535	2000	3500	<10	
08V5HA57E1A	Violet	Water Clear	3.4	3.8	405	410	35	70	<10	
08R5SA57E1A	Red	Water Clear	2.1	2.4	625	630	450	600	<10	
08Y5SA57E1A	Yellow	Water Clear	2.1	2.4	590	595	450	600	<10	
08O5SA57E1A	Orange	Water Clear	2.1	2.4	605	610	450	600	<10	
08R5PA57E1A	Red	Water Clear	2.1	2.4	624	629	1000	1500	<10	
08Y5PA57E1A	Yellow	Water Clear	2.1	2.4	590	595	1000	1500	<10	
08O5QA57E1A	Orange	Water Clear	2.1	2.4	605	610	1000	1500	<10	
08R5MA57E1A	Red	Water Clear	2.1	2.4	624	629	1500	2500	<10	
08Y5MA57E1A	Yellow	Water Clear	2.1	2.4	590	595	1500	2500	<10	
08O5MA57E1A	Orange	Water Clear	2.1	2.4	605	610	1500	2500	<10	

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

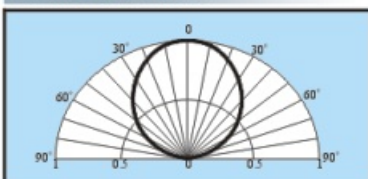
*5 Devices are sorted by 5nm wavelength ranges



Characters

- Viewing angle 100 deg

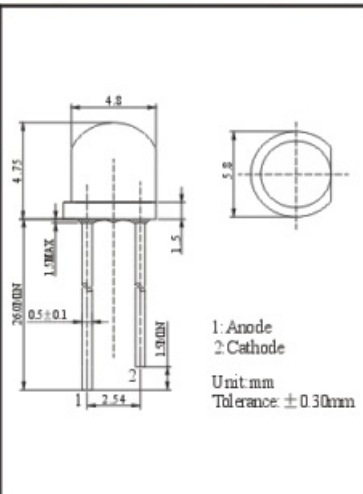
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)	Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
				X		Y					
				Working Current:IF=20 mA							
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
06W5DA56A1A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	2150	3000	<10
06M5DA56A1A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	1300	2000	<10
06K5DA56A1A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	380	700	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					X		Y				
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
Working Current:IF=20 mA											
06W5DL56A1A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	1700	2500	<10
06M5DL56A1A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	1000	1500	<10
06K5DL56A1A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	300	600	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μA)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
08B5SA56A1A	Blue	Water Clear	3.1	3.6	470	475	900	1200	<10
09G5DA56A1A	Pure Green	Water Clear	3.1	3.6	525	535	2500	4000	<10
08V5HA56A1A	Violet	Water Clear	3.4	3.8	405	410	40	80	<10
06R5SA56A1A	Red	Water Clear	2.1	2.4	625	630	600	1000	<10
08Y5SA56A1A	Yellow	Water Clear	2.1	2.4	590	595	600	1000	<10
08O5SA56A1A	Orange	Water Clear	2.1	2.4	605	610	600	1000	<10
06R5PA56A1A	Red	Water Clear	2.1	2.4	624	629	1500	2500	<10
08Y5PA56A1A	Yellow	Water Clear	2.1	2.4	590	595	1500	2500	<10
09O5GA56A1A	Orange	Water Clear	2.1	2.4	605	610	1500	2500	<10
08R5MA56A1A	Red	Water Clear	2.1	2.4	624	629	2000	3500	<10
08Y5MA56A1A	Yellow	Water Clear	2.1	2.4	590	595	2000	3500	<10
09O5MA56A1A	Orange	Water Clear	2.1	2.4	605	610	2000	3500	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

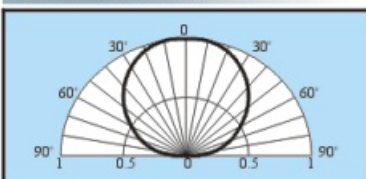
*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Characters

- Viewing angle 120 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	IF	30	50	mA
Pulse Forward Current	IFP	100*1	120*1	mA
Reverse Voltage	VR	5	5	V
Power Dissipation	PD	108	120	mW
Operating Temperature	Topr	-30~+85	-30~+85	°C
Storage Temperature	Tstg	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)	
					X		Y					
			Working Current: IF=20 mA									
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.		
06WSD5MCLB	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	150	300	<10	
06MSD5MCLB	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	90	150	<10	
06KSD5MCLB	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	40	80	<10	

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*4}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)	
					X		Y					
			Working Current: IF=20 mA									
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.		
06WDL5MC1B	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	120	200	<10	
06MDL5MC1B	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	70	120	<10	
06KDL5MC1B	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	30	60	<10	

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μA)	
			Working Current:IF=20 mA							
			Typ.	Max.	Typ.	Max.	Typ.	Max.		
06BSA5MC1B	Blue	Water Clear	3.1	3.6	470	475	100	200	<10	
06GSA5MC1B	Pure Green	Water Clear	3.1	3.6	525	535	150	300	<10	
06VSA5MC1B	Violet	Water Clear	3.4	3.8	405	410	5	10	<10	
06KSA5MC1B	Red	Water Clear	2.1	2.4	625	630	100	200	<10	
06YSA5MC1B	Yellow	Water Clear	2.1	2.4	590	595	100	200	<10	
06OSA5MC1B	Orange	Water Clear	2.1	2.4	605	610	100	200	<10	
06RPA5MC1B	Red	Water Clear	2.1	2.4	624	629	180	350	<10	
06YPA5MC1B	Yellow	Water Clear	2.1	2.4	590	595	180	350	<10	
06OGA5MC1B	Orange	Water Clear	2.1	2.4	605	610	180	350	<10	
06RMA5MC1B	Red	Water Clear	2.1	2.4	624	629	250	500	<10	
06YMA5MC1B	Yellow	Water Clear	2.1	2.4	590	595	250	500	<10	
06OMA5MC1B	Orange	Water Clear	2.1	2.4	605	610	250	500	<10	

*2 See table for Luminous Intensity Ranks

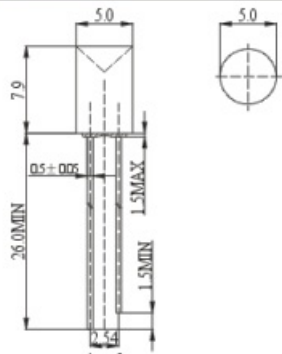
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



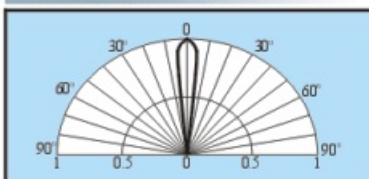
1: Anode
2: Cathode
Unit:mm
Tolerance: ±0.30mm



Characters

- Viewing angle 8 deg

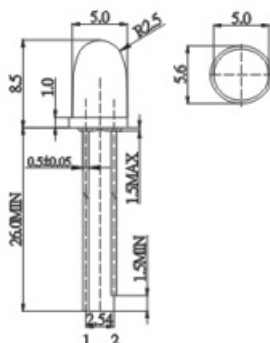
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



- Anode
- Cathode

Unit:mm

Tolerance:±0.30mm

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100*1	120*1	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	°C
Storage Temperature	T_{stg}	-40~+100	-40~+100	°C

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*5		Reverse Current IR (μA)
					X		Y				
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
Working Current:IF=20 mA											
OSW5DA5201A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	50000	70000	<10
OSM5DA5201A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	29000	40000	<10
OSK5DA5201A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	6500	9000	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates*4				Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DL5201A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	40000	60000	<10
OSM5DL5201A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	24000	35000	<10
OSK5DL5201A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	5000	8000	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*3		Luminous Intensity (mcd)*3		Reverse Current IR (μ A)
			Working Current:IF=20 mA						
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSB5SA5201A	Blue	Water Clear	3.1	3.6	470	475	9000	12000	<10
OSG5DA5201A	Pure Green	Water Clear	3.1	3.6	525	535	35000	50000	<10
OSV5HA5201A	Violet	Water Clear	3.4	3.8	405	410	300	500	<10
OSR5SA5201A	Red	Water Clear	2.1	2.4	625	630	15000	20000	<10
OSY5SA5201A	Yellow	Water Clear	2.1	2.4	590	595	15000	20000	<10
OSO5SA5201A	Orange	Water Clear	2.1	2.4	605	610	15000	20000	<10
OSR5PA5201A	Red	Water Clear	2.1	2.4	624	629	40000	60000	<10
OSY5PA5201A	Yellow	Water Clear	2.1	2.4	590	595	40000	60000	<10
OSO5GA5201A	Orange	Water Clear	2.1	2.4	605	610	40000	60000	<10
OSR5MA5201A	Red	Water Clear	2.1	2.4	624	629	60000	80000	<10
OSY5MA5201A	Yellow	Water Clear	2.1	2.4	590	595	60000	80000	<10
OSO5MA5201A	Orange	Water Clear	2.1	2.4	605	610	60000	80000	<10

*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

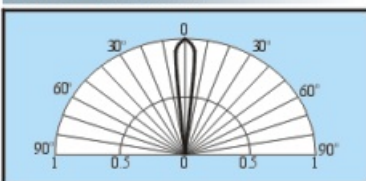
*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Characters

- Viewing angle 8 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{PF}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~+100	-40~+100	$^{\circ}\text{C}$

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number ^{#2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{#4}				Luminous Intensity (mcd) ^{#3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSWSDAA201A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	63000	80000	<10
OSMSDAA201A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	33000	50000	<10
OSKSDAA201A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	7000	10000	<10

Low Decay Type Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*2}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DLA201A	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	50000	70000	<10
OSMSDLA201A	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	26000	40000	<10
OSK5DLA201A	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	5700	9000	<10

Electrical And Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength $\lambda_d(\text{nm})$ ^{*3}		Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSB3SAA201A	Blue	Water Clear	3.1	3.6	470	475	18000	25000	<10
OSG3SAA201A	Pure Green	Water Clear	3.1	3.6	525	535	40000	60000	<10
OSV3SAA201A	Violet	Water Clear	3.4	3.8	405	410	500	800	<10
OSR3SAA201A	Red	Water Clear	2.1	2.4	625	630	35000	50000	<10
OSY3SAA201A	Yellow	Water Clear	2.1	2.4	590	595	35000	50000	<10
OSO3SAA201A	Orange	Water Clear	2.1	2.4	605	610	35000	50000	<10
OSR3SAA201A	Red	Water Clear	2.1	2.4	624	629	60000	90000	<10
OSY3SAA201A	Yellow	Water Clear	2.1	2.4	590	595	60000	90000	<10
OSO3SAA201A	Orange	Water Clear	2.1	2.4	605	610	60000	90000	<10
OSR3SAA201A	Red	Water Clear	2.1	2.4	624	629	80000	120000	<10
OSY3SAA201A	Yellow	Water Clear	2.1	2.4	590	595	80000	120000	<10
OSO3SAA201A	Orange	Water Clear	2.1	2.4	605	610	80000	120000	<10

*2 See table for Luminous Intensity Ranks

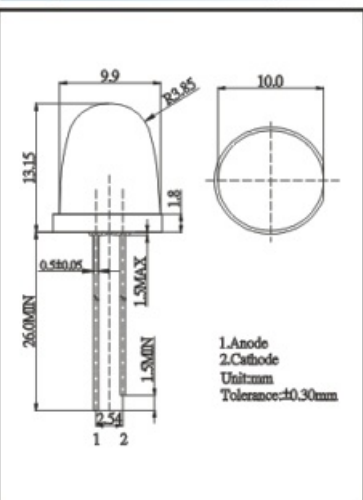
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit:mm)



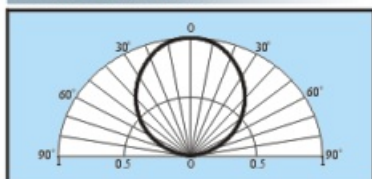
1. Anode
2. Cathode
Unit:mm
Tolerance: $\pm 0.30\text{mm}$



Characters

- Viewing angle 100 deg

Directive Characteristics



Relative Luminous Intensity

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I _F	30	50	mA
Pulse Forward Current	I _{FP}	100 ^{a1}	120 ^{a1}	mA
Reverse Voltage	V _R	5	5	V
Power Dissipation	P _D	108	120	mW
Operating Temperature	T _{opr}	-30~+85	-30~+85	°C
Storage Temperature	T _{stg}	-40~+100	-40~+100	°C

•1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ²	Emitting Color	Lens Type	Forward Voltage V _F (V)		Chromaticity coordinates ⁴				Luminous Intensity (mcd) ³		Reverse Current I _R (μA)
					X		Y				
			Working Current: I _F = 20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DA7LA1B	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	3150	5000	<10
OSMSDA7LA1B	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	1600	3000	<10
OSK5DA7LA1B	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	380	700	<10

Low Decay Type Electrical And Optical Characteristics (Ta=25°C)

Part Number ^{§2}	Emitting Color	Lens Type	Forward Voltage V _F (V)		Chromaticity coordinates ^{§4}				Luminous Intensity (mcd) ^{§3}		Reverse Current I _R (μA)
					X		Y				
			Working Current: I _F =20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DL71A1B	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	2500	3500	<10
OSM5DL71A1B	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	1300	2000	<10
OSK5DL71A1B	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	300	500	<10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm)*5		Luminous Intensity (mcd)*3		Reverse Current IR (μA)
					Working Current:IF=20 mA				
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSB5SA71A1B	Blue	Water Clear	3.1	3.6	470	475	750	1000	<10
OSG5DA71A1B	Pure Green	Water Clear	3.1	3.6	525	535	2500	3500	<10
OSV5HA71A1B	Violet	Water Clear	3.4	3.8	405	410	15	40	<10
OSR5JA71A1B	Red	Water Clear	2.1	2.4	625	630	700	1000	<10
OSY5SA71A1B	Yellow	Water Clear	2.1	2.4	590	595	700	1000	<10
OSO5BA71A1B	Orange	Water Clear	2.1	2.4	605	610	700	1000	<10
OSR5PA71A1B	Red	Water Clear	2.1	2.4	624	629	1500	2000	<10
OSY5PA71A1B	Yellow	Water Clear	2.1	2.4	590	595	1500	2000	<10
OSO5GA71A1B	Orange	Water Clear	2.1	2.4	605	610	1500	2000	<10
OSR5MA71A1B	Red	Water Clear	2.1	2.4	624	629	2000	3000	<10
OSY5MA71A1B	Yellow	Water Clear	2.1	2.4	590	595	2000	3000	<10
OSO5MA71A1B	Orange	Water Clear	2.1	2.4	605	610	2000	3000	<10

*2 See table for Luminous Intensity Ranks

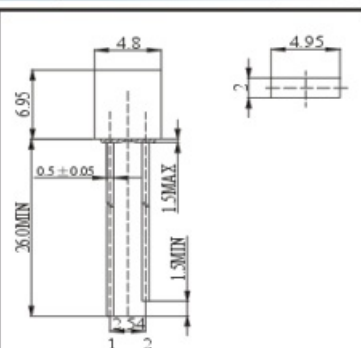
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Package Outlines

(Unit: nm)



1:Anode

2: Cathode

Unit:mm

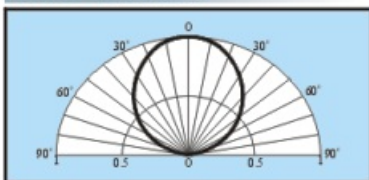
Tolerance: $\pm 0.30\text{mm}$

Mono-Color/2x3x4mm LED Series

Characters

- Viewing angle 100 deg

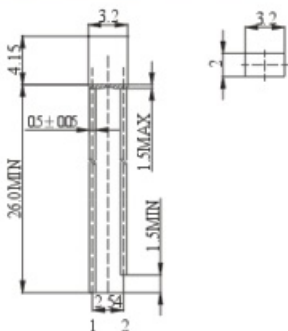
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



1:Anode

2:Cathode

Unit:mm

Tolerance: $\pm 0.30\text{mm}$

Absolute Maximum Rating ($T_a=25^\circ\text{C}$)

Item	Symbol	Value		Unit
		W/M/K/B/G	R/Y/O	
DC Forward Current	I_F	30	50	mA
Pulse Forward Current	I_{FP}	100 ^{*1}	120 ^{*1}	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	120	mW
Operating Temperature	T_{opr}	-30~+85	-30~+85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40~+100	-40~+100	$^\circ\text{C}$

*1 Duty 1/10 Pulse Width 10 ms

Common Type Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*3}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DA7BA1B	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	1300	2000	<10
OSM5DA7BA1B	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	650	1000	<10
OSK5DA7BA1B	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	150	300	<10

Low Decay Type Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Chromaticity coordinates ^{*2}				Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
					X		Y				
			Working Current: IF=20 mA								
			Typ.	Max.	Min.	Max.	Min.	Max.	Typ.	Max.	
OSW5DL7BA1B	Pure White	Water Clear	3.1	3.6	0.23	0.31	0.24	0.32	1000	1500	<10
OSM5DL7BA1B	Warm White	Water Clear	3.1	3.6	0.41	0.49	0.37	0.45	500	700	<10
OSK5DL7BA1B	Pink	Water Clear	3.1	3.6	0.41	0.49	0.13	0.21	110	180	<10

Electrical And Optical Characteristics ($T_a=25^\circ\text{C}$)

Part Number ^{*2}	Emitting Color	Lens Type	Forward Voltage VF (V)		Dominant Wavelength wd(nm) ^{*3}		Luminous Intensity (mcd) ^{*3}		Reverse Current IR (μA)
			Typ.	Max.	Typ.	Max.	Typ.	Max.	
OSB5SA7BA1B	Blue	Water Clear	3.1	3.6	470	475	600	1000	<10
OSG5DA7BA1B	Pure Green	Water Clear	3.1	3.6	525	535	1200	2000	<10
OSV5HA7BA1B	Violet	Water Clear	3.4	3.8	405	410	10	30	<10
OSR5SA7BA1B	Red	Water Clear	2.1	2.4	625	630	450	800	<10
OSY5SA7BA1B	Yellow	Water Clear	2.1	2.4	590	595	450	800	<10
OSO5SA7BA1B	Orange	Water Clear	2.1	2.4	605	610	450	800	<10
OSR5PA7BA1B	Red	Water Clear	2.1	2.4	624	629	800	1200	<10
OSY5PA7BA1B	Yellow	Water Clear	2.1	2.4	590	595	800	1200	<10
OSO5PA7BA1B	Orange	Water Clear	2.1	2.4	605	610	800	1200	<10
OSR5MA7BA1B	Red	Water Clear	2.1	2.4	624	629	1200	2000	<10
OSY5MA7BA1B	Yellow	Water Clear	2.1	2.4	590	595	1200	2000	<10
OSO5MA7BA1B	Orange	Water Clear	2.1	2.4	605	610	1200	2000	<10

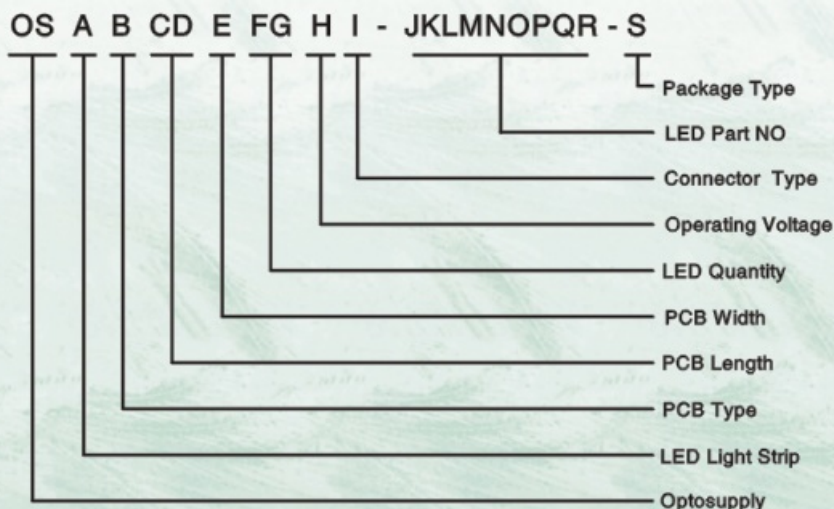
*2 See table for Luminous Intensity Ranks

*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

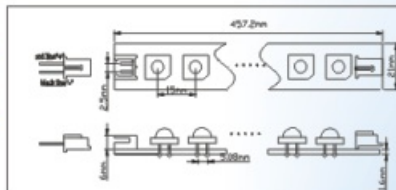
LED Light Strip Part Number Formation:



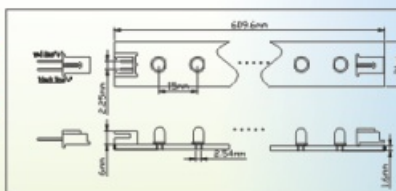
OS	A	B	CD	E
Optosupply	LED Light Strip	PCB Type	PCB Length	PCB Width
	M=Light Strip	F=FPC Yellow	02=2CM	C=Circular
		W=FR4 White	38=38CM	8=8MM
		Y=94V0 Yellow	50=50CM	E=10MM
		X=Other	XX=Other	K=21MM
				X=Other
FG	H	I	JKLMNOPQR	S
LED Quantity	Operating Voltage	Connector Type	LED Part NO	Package Type
04=4LED	6=6V	S=Straight	Refer to LED	A=Single
12=12LED	9=9V	C=Curved	Part Number	D=5M/Roll
27=27LED	E=10V	P=Pad		G=10M/Roll
30=30LED	G=12V	J=JST		X=Other
37=37LED	K=24V	M=Molex		
XX=Other	X=Other	X=Other		



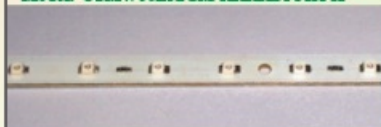
LED Light Strip

Model: OSMY46K27GH-XXXXXXXXXX-X**Super Flux PCB LED**

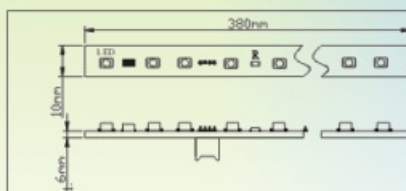
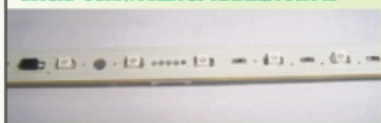
- 1) Available in full range of colors.
- 2) Low input voltage DC 12V, Available in DC 6V, 9V, 24V, etc.
- 3) Multi choice for viewing angles from 60-120 degrees.
- 4) Available in 27LED version for each PCB, The type of connection terminal is PH-2.5.
- 5) Suitable for backlighting of signs, channel letters and interior decoration.

Model: OSMY61K37GH-XXXXXXXXXX-X**5mm Round PCB LED**

- 1) Available in full range of colors.
- 2) Low input voltage DC 12V, Available in DC 6V, 9V, 24V, etc.
- 3) Multi choice for viewing angles from 8-140 degrees.
- 4) Available in 37led version for each PCB, The type of connection terminal is PH-2.5.
- 5) Suitable for backlighting of signs, channel letters and interior decoration.

Model: OSMW60E32GM-XXXXS1C1A-X**SMD PCB LED**

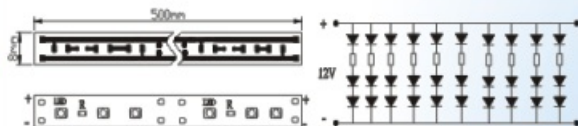
- 1) Available in full range of colors
- 2) Low input voltage DC 12V, Available in DC 6V, 9V, 24V, etc.
- 3) Harmonious Light with wide viewing angle 120 degrees.
- 4) Available in 32 led version for each PCB, The type of connection terminal 39-01-2040 is supplied by Molex.
- 5) Suitable for backlighting of signs, channel letters and interior decoration

Model: OSMW38E20GJ-XXXXS1C1A-X**SMD PCB LED**

- 1) Available in full range of colors
- 2) Low input voltage DC 12V, Available in DC 6V, 9V, 24V, etc.
- 3) Harmonious Light with wide viewing angle 120 degrees.
- 4) Available in 20 led version for each PCB, The type of connection terminal B05B-PASK is supplied by JST.
- 5) Suitable for backlighting of signs, channel letters and interior decoration

LED Light Strip

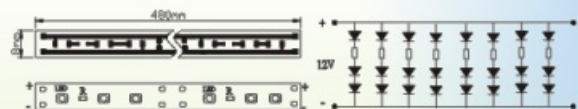
Model: OSMF50830GP-XXXXS1C1A-X



SMD Strip LED

- 1) Linear separable LED strip on flexible printed circuit board.
- 2) Each unit of 3 leds can be cut out at regular segments without damaging the rest ribbon
- 3) View angle is 120 degrees and voltage is DC 12V. Available in DC 6V, 9V, 24V, etc
- 4) Used for path & contour making, illuminated signs, etc

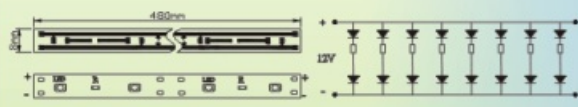
Model: OSMF48824GP-XXXXS1C1A-X



SMD Strip LED

- 1) Linear separable LED strip on flexible printed circuit board.
- 2) Each unit of 2 leds can be cut out at regular segments without damaging the rest ribbon
- 3) View angle is 120 degrees and voltage is DC 12V. Available in DC 6V, 9V, 24V, etc
- 4) Used for path & contour making, illuminated signs, etc

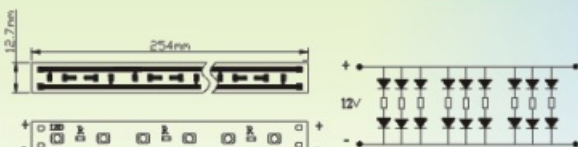
Model: OSMF48816GP-XXXXS1C1A-X



SMD Strip LED

- 1) Linear separable LED strip on flexible printed circuit board.
- 2) Each unit of 2 leds can be cut out at regular segments without damaging the rest ribbon
- 3) View angle is 120 degrees and voltage is DC 12V. Available in DC 6V, 9V, 24V, etc
- 4) Used for path & contour making, illuminated signs, etc

Model: OSMF25G18GP-XXXXS1C1A-X

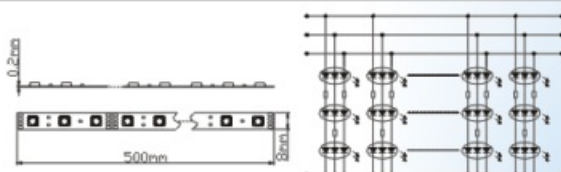


SMD Strip LED

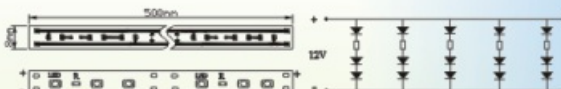
- 1) Linear separable LED strip on flexible printed circuit board.
- 2) Each unit of 6 leds can be cut out at regular segments without damaging the rest ribbon
- 3) View angle is 120 degrees and voltage is DC 12V. Available in DC 6V, 9V, 24V, etc
- 4) Used for path & contour making, illuminated signs, etc



LED Light Strip

Model: OSMF50830GP-TCMBS4C1A-X**RGB LED Ribbon Light**

- 1) Available in 30-RGB LED, View angle is 120 degrees.
- 2) Full range of colors: red, green, blue.
- 3) Voltage is DC 12V, Each unit of 3 leds can be cut out at regular segments without damaging the rest PCB
- 4) Used for path & contour making, illuminated signs, etc.

Model: OSMW50815GP-XXXXS1C1A-X**SMD PCB LED**

- 1) Available in 15-LED, View angle is 120 degrees.
- 2) Full range of colors: red, yellow, blue, green, white, etc.
- 3) Voltage is DC 12V, Each unit of 3 leds can be cut out at regular segments without damaging the rest PCB
- 4) Used for path & contour making, illuminated signs, etc.

Model: OSMW03C12GP-XXXXS1C1A-X**SMD PCB LED**

- 1) Available in 12- LED, View angle is 120 degrees.
- 2) Full range of colors: red, yellow, blue, green, white, etc.
- 3) Voltage is DC 12-16V, Stable input current.
- 4) Used for path & contour making, illuminated signs, etc.

Model: OSMW02C04GX-XXX3ZXXXP-X**Super Flux PCB LED**

- 1) Available in 4- LED, View angle is 60-120 degrees.
- 2) Full range of colors: red, yellow, blue, green, white, etc.
- 3) Voltage is AC/DC 12V, The type of connection terminal is JCG4.
- 4) Used for path & contour making, illuminated signs, etc.

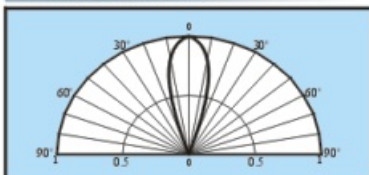
Screw Based LED series



Characters

- Viewing angle 30 deg
- AC or DC Driver

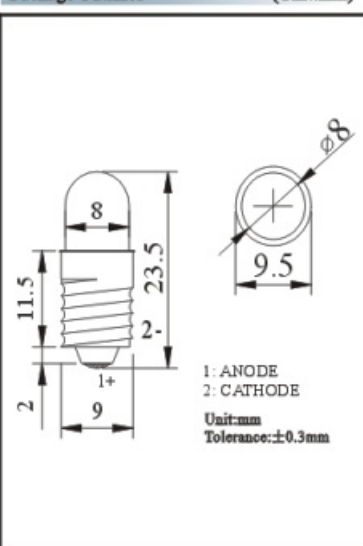
Directive Characteristics



Relative Luminous Intensity

Package Outlines

(Unit:mm)



Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	IF	20	mA
Pulse Forward Current*	IFP	70*1	mA
Power Dissipation	PD	90	mW
Operating Temperature	T _{opr}	-10~+50	°C
Storage Temperature	T _{stg}	-20~+70	°C

*1 Pulse width Max. 10ms Duty ratio max 1/10

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage AC/DC VF(V)		Chromaticity Coordinates*4				Luminous Intensity IV(mcd)*3		Reverse Current IR (μA)
					X		Y				
			Working Current:IF=20 mA								
			AC	DC	Min.	Max.	Min.	Max.	Typ.	Max.	
OBDB-W5SARB31F	White	Water Clear	4-24	4-24	0.26	0.29	0.25	0.28	18000	25000	<10μA
OBDB-M5SARB31F	Warm White	Water Clear	4-24	4-24	0.41	0.49	0.37	0.45	9000	12000	<10μA
OBDB-K5SARB31F	Pink	Water Clear	4-24	4-24	0.34	0.44	0.15	0.25	2100	3000	<10μA

Electrical And Optical Characteristics (Ta=25°C)

Part Number*2	Emitting Color	Lens Type	Forward Voltage AC/DC VF(V)		Dominant Wavelength wd(nm)*5		Luminous Intensity IV(mcd)*9		Reverse Current IR (μ A)	
			Working Current:IF=20 mA							
			AC	DC	Typ.		Max.	Typ.		Max.
OBDB-B5SAB31F	Blue	Water Clear	4-24	4-24	470		475	5200	8000	<10
OBDB-G5DAB31F	Pure Green	Water Clear	4-24	4-24	525		535	20000	25000	<10
OBDB-Y5MAB31F	Yellow	Water Clear	4-24	4-24	590		595	13000	15000	<10
OBDB-O5GAB31Q	Orange	Water Clear	4-24	4-24	605		610	9000	12000	<10
OBDB-R5MAB31F	Red	Water Clear	4-24	4-24	625		630	13000	15000	<10

*2 See table for Luminous Intensity Ranks

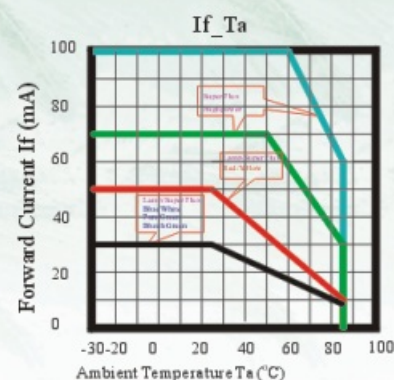
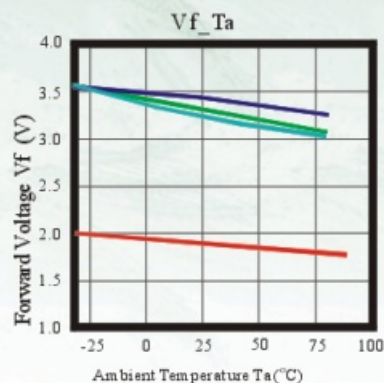
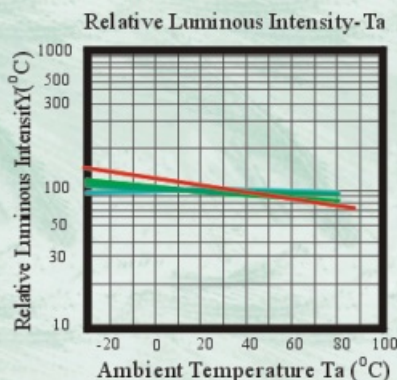
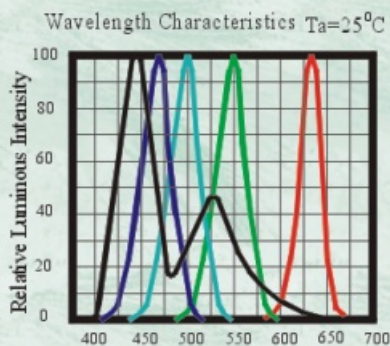
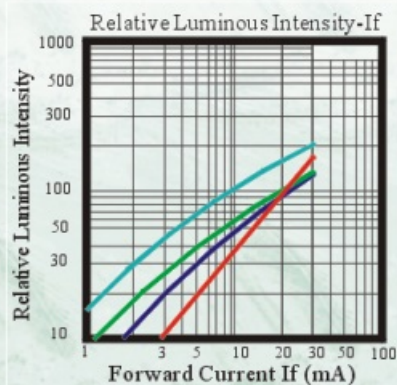
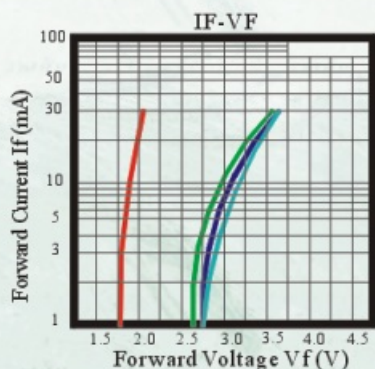
*3 Axial Direction (Luminous Intensity)

*4 Please refer to CIE 1931 chromaticity diagram

*5 Devices are sorted by 5nm wavelength ranges

Typical Characteristics

*The data shows typical value.





PRECAUTIONS IN USE

- 1 The products described in this brochure are intended only for standard applications or general electronic equipment such as office equipment, communications, and electronic instrumentation and household electrical appliances. When they are used for transport equipment, disaster prevention and crime prevention equipment as well as other safety devices calling for high reliability and safety, users are required to pay particular heed to the safety design of the equipment as a whole in terms of fail-safe design and redundant design to maintain the reliability and safety of the equipment.
Consult Optosupply staff in advance for special applications such as aviation, spacecraft, heating equipment and lifesustaining equipment which require exceptionally high reliability and safety and if their failure or malfunction may threaten human lives or may be detrimental to human bodies.
It is to be understood that the seller shall not be held responsible for any damage incurred as a result of using the products for the purpose which is not the standard the seller has intended to be used for, unless the seller agrees to the nonstandard use in writing.
 - 2 Users are requested to comply with the laws and public regulations concerning safety.
 - 3 In the event the products which are to be used are in mass production, the execution of written specifications or purchase agreement between the seller and the customer is required.
The seller shall bear no responsibility for any damages or injury that are caused by customers' usage of the products without the execution of such specification or purchase agreement.
 - 4 The detail of tolerance for Electrical/Optical characteristics can be found on the execution of written specifications.
 - 5 **Soldering Conditions**
 - When soldering, leave minimum clearance between the resin and the soldering point.
 - Maximum allowable soldering conditions are:
Solder dipping: 260 degrees C max., 5 seconds max., one time.
Soldering iron: 320 degrees C max., 5 seconds max., one time, power 30W max.
 - Contact between molten solder and the resin must be avoided
 - Adjusting the soldered position after soldering must be avoided.
 - In soldering, do not put any stress to the lead frame, particularly when heated.
 - 6 **Lead forming and cut**
 - Lead forming must be done below the tie bar cutting position.
 - When forming a lead, do not stress the resin case.
 - Cutting lead forming must be done before soldering.
 - Cutting the lead frame at high temperature may cause problems. Cut the lead frame at room temperature.
 - 7 **Assembly**
 - Do not put any stress to the lead frame while assembling.
 - When mounting Products onto boards such as printed wired board, the pitch between the two holes of such boards must be the pitch of the Products.
 - 8 **Static Electricity**
 - These products are so sensitive to static electricity charge that users are required to handle with care. Particularly if an over-current and over-voltage which exceeds the Absolute Maximum Rating of Products is applied, the overflow in energy may cause damage to, or possibly result in electrical destruction of, the Products. Customer is requested to adequate countermeasures against static electricity charge and surge when handling Products.
 - A protection device should be installed in the LED driving circuit, which does not exceed the max. rating for surge current during on/off switching.
 - Proper grounding of Products (via LM G), use of conductive mat, semiconductive working uniform and shoes, and semiconductive containers are considered to be effective as countermeasures against static electricity and surge.
 - When the electrified product touches the low resistance part such as the metal face, there is a high possibility that it may be charged due to radical electric discharge.
When grinding, use of resisting element such as conductive mat is effective for parts where the product directly touches.
 - A tip of soldering iron is requested to be grounded. An ionizer should also be installed where risk of static generation is high.
 - If the countermeasures mentioned above are implemented, LED can work well.
Users are required to confirm those countermeasures when problems are caused by static electricity.
 - 9 **Safety Precautions**
 - Users are requested to comply with the laws and public regulations concerning safety.
 - The light output of the Products may cause injuries to human eyes in circumstances where the Products are viewed directly for more than a few seconds.



Optosupply Longgang Factory



LED Lamp Production



LED Lamp Assembly



LED Bin Sorter



RoHS



- ★ Modifications in the shape and specifications of the Product maybe made without prior notice.
- ★ The actual color of the Products may differ from those printed in this brochure.
- ★ For details on the Product described here, kindly contact Optosupply Sales Division.

Hong Kong Office:

Optosupply Limited

Unit 202, 2/F., Wah Yiu Industrial Centre,
30-32, Au Pui Wan Street,
Fo Tan, N. T.,
Hong Kong.

Tel.: (852) 2790 5099 (8 Lines)

Fax.: (852) 2342 9833

E-mail: sales-hk@optosupply.com

Website: www.optosupply.com

香港寫字樓:

光谷有限公司

香港新界火炭坳背灣街30-32號華耀工業中心2樓202室

Factory:

Optosupply Electronics (SZ) Limited

Optosupply Industrial Zone,
South Dabu, Longhu Road,
Longdong Village, Longgang Town,
Shenzhen, P.R. C.

Tel.: (86) 0755-8484 6601 (12 Lines)

Fax.: (86) 0755-8484 6596

工廠:

光源電子(深圳)有限公司

深圳市龍崗鎮龍東村龍湖路大埔南光源工業區