

# SPECIFICATION

ISSUED DATE : 16th. Aug. 2017

DOCUMENT NO : KPDC-KIS9001C-C

CUSTOMER : 노틸러스효성

DESCRIPTION : LED Ass'y

MODEL NO. : KIS9001C

**[ AUK CORP. ]**

ISSUE DEPT.			PRODUCTION		Q/A	
ISSUE	REVIEW	APPR'L	REVIEW	APPR'L	REVIEW	APPR'L
DS.Han	/	CH.Cho	/	/	YS.Jung	TH.Lim

**[ CUSTOMER APPROVAL ]**

ISSUE	REVIEW					

**[ REVISION ]**

NO	DATE	REVISION ITEMS	ISSUED BY	APPR'D BY
0	10.05.04	ISSUED	MK.Lee	YP.Hong
A	14.06.27	UPDATE	HH.Yang	YH.Lee
B	17.03.08	Rank별 IL값(CTR값) 범위 변경	DS.Han	CH.Cho
C	17.08.16	Rank별 Ink Marking Color 정보 추가.	DS.Han	CH.Cho

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**AUK takes no responsibility for damage caused by improper use of the devices which does not meet the conditions and absolute maximum ratings to be used specified in the relevant specification sheet.**

Please obey the instructions mentioned below for actual use of this device.

① This device is designed for general electronic equipment.

Main use of this device are as follows;

- \* Computer
- \* OA equipment
- \* Telecommunication equipment(Terminal)
- \* Measuring instrument
- \* Machine tool
- \* Industrial robot
- \* AV equipment
- \* Home appliance,etc.

② Please take proper steps in order to maintain reliability and safety, in case this device is used for the uses mentioned below which require high reliability.

- \* Unit concerning control and safety of a vehicle (air plane,train,automobile, etc.)
- \* Traffic signal
- \* Gas leak detection breaker
- \* Fire box and burglar alarm box
- \* Other safety equipment,etc.

③ Please don't use for the uses mentioned below which require extremely high reliability.

- \* Space equipment
- \* Telecommunication equipment(Trunk)
- \* Nuclear control equipment
- \* Medical equipment(relating to any fatal element),etc.

## 1. Description

The KIS9001C is a high-output GaAs IRED with connector has been put together in a package.

## 2. Features

- ◆ Difficult for dust and debris to come onto element
- ◆ Easy equipping

## 3. Applications

- ◆ ATM
- ◆ Printer
- ◆ Copy Machine

## 4. Outline Dimensions

: See the attached page Drawing No. PI-9001C-PKG-01

## 5. Absolute Maximum Ratings

5-1. Ambient conditions for maximum ratings are defined as follows :

- \* Relative Humidity : 50% ± 20%
- \* Temperature : 25°C ± 5°C
- \* Atmospheric Pressure : 650 to 800 mm Hg

### EMITTER, DETECTOR

Parameter	Symbol	Rating	Unit
Power Dissipation	$P_D$	100	mW
Forward Current	$I_F$	60	mA
Reverse Voltage	$V_R$	5	V
Peak Forward Current <sup>(1)</sup>	$I_{FP}$	1	A
Operating Temperature	$T_{opr}$	-20 ~ 75	°C
Storage Temperature Range	$T_{stg}$	-30 ~ 85	°C
ESD Withstand Voltage (Human Body Model)	$V_{ESD}$	±2.0	kV

Note 1. Pulse width ≤ 100usec ; Duty factor : 1%

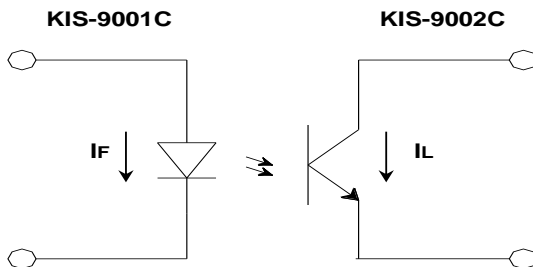
### 6. Electrical Characteristics

Operation is specified over the entire operating temperature / humidity range unless otherwise specified.

Operating Temperature	Topr	+5 to +45	°C
Operating Humidity (over Topr Range)	Hopr	5 ~ 95	%RH

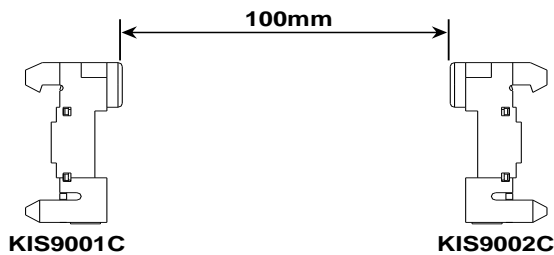
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=20mA$	1.0	1.2	1.4	V
Reverse Current	$I_R$	$V_R=5V$	-	-	10	$\mu A$
Capacitance	$C_t$	1MHz	-	25.0	-	$\mu F$
Light Current	$I_L$	$I_F=20mA$	0.6	2.0	10.0	mA
Current Transfer Ratio <sup>(2)</sup>	CTR	$L=100mm, I_F=20mA, V_{CC}=5V$	0.03	0.1	0.5	-
Peak Wavelength	$\lambda_p$	$I_F=60mA$	850	940	1000	nm
Spectral bandwidth 50%	$\Delta\lambda$	$I_F=60mA$	-	50.0	-	nm
Half Angle	$\Delta\theta$	$I_F=60mA$	-	$\pm 5$	-	deg.

Note 2. CTR(Current Transfer Ratio) =  $I_L/I_F$



### 3. CTR(Current Transfer Ratio) Test Method

- Test Equipment : KKC KIS9001C E/T Jig



### 7. Cautions in Usage

- 7-1. Store and use where there is no exterior force that will cause change in shape.
- 7-2. Store and use where there is no Hydrogen Sulfide gas, or any other corrosive gas.

## 8. Guarantee Period and Scope

### 8-1. Period

One year after delivery to the desired place.

### 8-2. Scope

Replacement of products will be done, if any problems lie in our company's products.

However, we are not liable for your damage by lack of caution.

## 9. Others

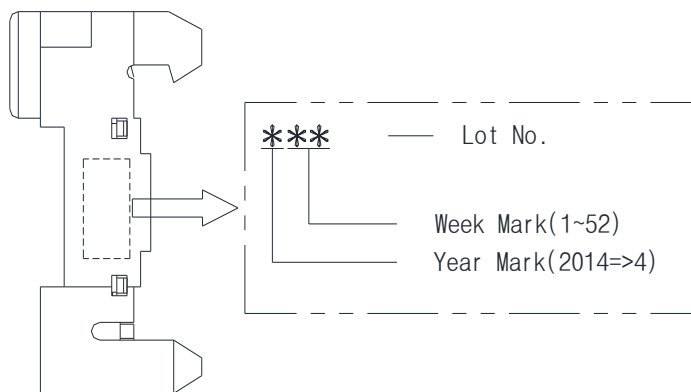
Any doubts concerning this specification should be discussed fully by both parties.

## 10. LOT No. Indication

### 10-1. Definition of LOT No.

Production place and manufacture year, week code.

### 10-2. Marking position and method.



## 11. Rank Range

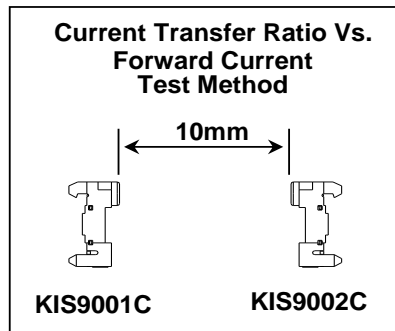
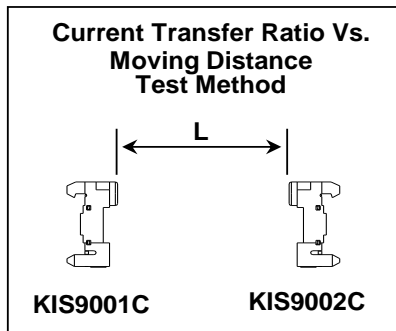
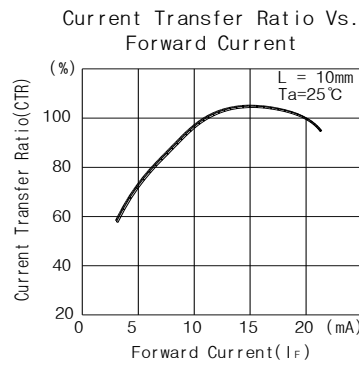
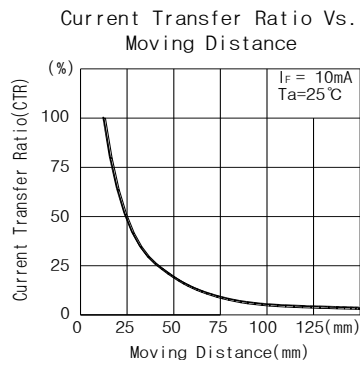
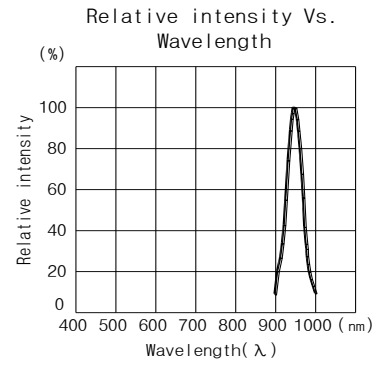
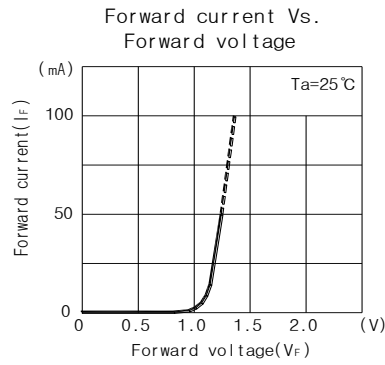
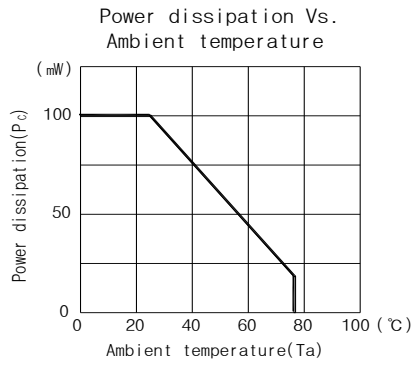
### 11-1. Rank is divided as below according to CTR value.

- A Rank : 0.030 ~ 0.105 ( Ink Marking Color : White)
- B Rank : 0.085 ~ 0.180 ( Ink Marking Color : Red)
- C Rank : 0.150 ~ 0.500 ( Ink Marking Color : Yellow)

### 11-2. Rank is divided as below according to I<sub>L</sub> value.

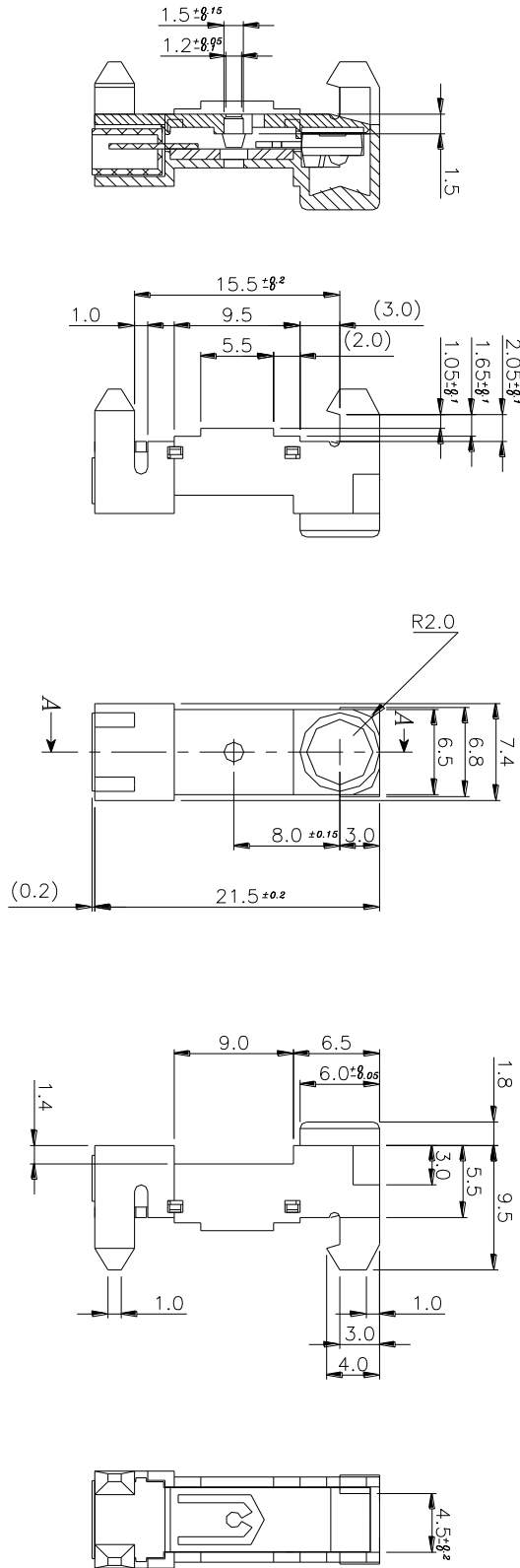
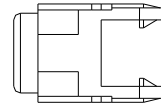
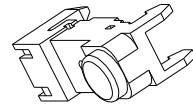
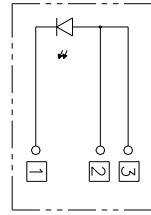
- A Rank : 0.60mA ~ 2.10mA ( Ink Marking Color : White)
- B Rank : 1.70mA ~ 3.60mA ( Ink Marking Color : Red)
- C Rank : 3.00mA ~ 10.00mA ( Ink Marking Color : Yellow)

## 12. Characteristics

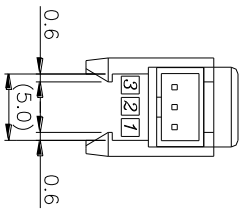


Note

1. Pin Configuration



SECTION.A-A



Classification		Name		GENERAL TOLERANCE(F)														
MARK	REVISION	DATE	NAME	SIGN	Dimension													
0	ISSUE	06/09/08	DS-Hon	DS-Hon	<math>0.1\text{ and below}</math>	0	1	2	3	4	5	<math>4\text{--}16</math> and below	0.05	0.05	0.05	0.15	0.2	0.5
					16-64 and below	0.05	0.05	0.05	0.1	0.2	0.5	0.8	0.1	0.1	0.2	0.3	0.5	0.8
					65-250 and below	0.1	0.2	0.3	0.5	0.8	1.8							

NO	DESCRIPTION	MAT'L	DIMENSION	REMARK
ISSUED	ISSUED DEPT.	Q'TY	TITLE	
REVIEW	REVIEW	UNIT		
APPR'L	APPR'L	MM		
		SCALE		
		3/1		
DRAWING NO	REF DWG NO	<b>KODENSHI</b>		
PI-9001C-PKG-03				

KKC-QM-067-2