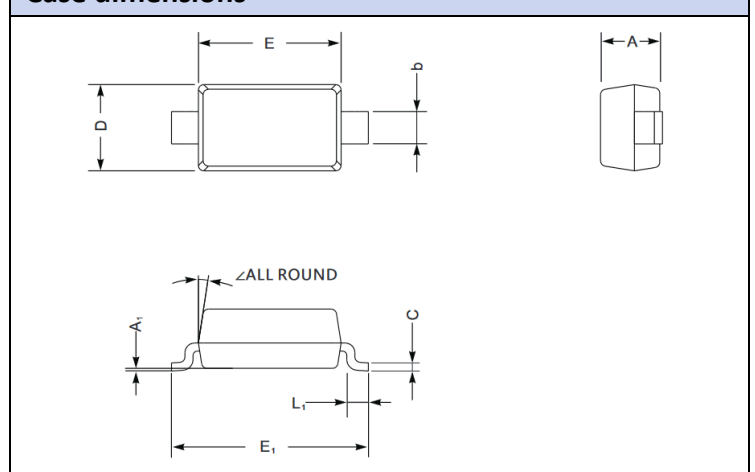


Silicon SMD Voltage Regulator Zener Diodes

Primary characteristics		
Parameter	Value	Unit
V _Z range nom.	1.8 to 43	V
Power rating	350	mW

Features

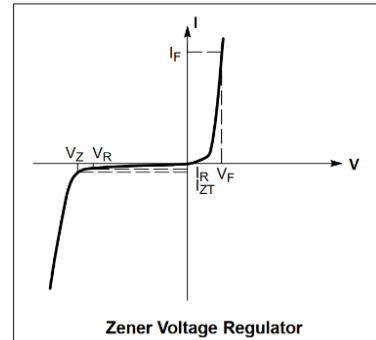
- **SOD-123** case for easy automatic insertion.
- Pb-free and **RoHS** compliant
- UL Flammability Classification Rating 94V-0
- Polarity: cathode band
- ESD rating of Class 3 (>16kV) per Human Body Model

Case dimensions									
									
SOD-123									
Unit	A	C	D	E	E ₁	L ₁	b	A ₁	Z
mm	1.35 MAX	0.11 TYP	1.55 ±0.15	2.7 ±0.15	3.7 ±0.15	0.25 MIN	0.55 TYP	0.1 MAX	8° MAX

Part numbering system	
MMSZ ↓ Series code	4690 ↓ Reverse Zener Voltage Indicator (see: Characteristics table)

Absolute maximum ratings (T _a = 25°C)			
Parameter	Symbol	Value	Unit
Forward voltage @I _F =10m	V _F	0.9	V
Power dissipation	P _D	350	mW
Operating and storage temperature range	T _S	-55 ~ 150	°C
Thermal resistance junction to ambient air	R _{θJA}	357	°C/W
Device mounted on ceramic PCB: 5.0mm x 7.0mm with pad areas 35mm ²			

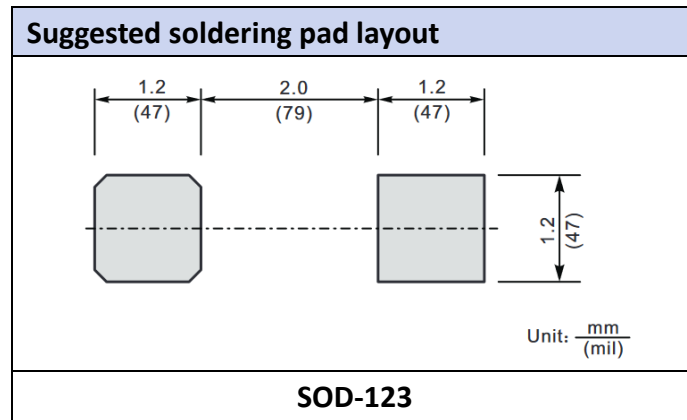
Parameters list	
Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
I_{ZT}	Reverse Current
I_R	Reverse Leakage Current @ V_R
V_R	Reverse Voltage
I_F	Forward Current
V_F	Forward Voltage @ I_F



Characteristics table ($T_a = 25^\circ\text{C}$)

Type	Marking Code	Zener Voltage ¹⁾			Leakage current	
		V_Z nom.	I_{ZT}	V_{ZT}	$I_R @ V_R$	
		V	μA	V	μA	V
MMSZ4678	CC	1.8	50	1.71 ~ 1.89	7.5	1.0
MMSZ4679	CD	2.0	50	1.90 ~ 2.10	5.0	1.0
MMSZ4680	CE	2.2	50	2.09 ~ 2.31	4.0	1.0
MMSZ4681	CF	2.4	50	2.28 ~ 2.52	2.0	1.0
MMSZ4682	CH	2.7	50	2.57 ~ 2.83	1.0	1.0
MMSZ4683	CJ	3.0	50	2.85 ~ 3.15	0.8	1.0
MMSZ4684	CK	3.3	50	3.13 ~ 3.47	7.5	1.5
MMSZ4685	CM	3.6	50	3.42 ~ 3.78	7.5	2.0
MMSZ4686	CN	3.9	50	3.70 ~ 4.10	5.0	2.0
MMSZ4687	CP	4.3	50	4.09 ~ 4.51	4.0	2.0
MMSZ4688	CT	4.7	50	4.47 ~ 4.93	10.0	3
MMSZ4689	CU	5.1	50	4.85 ~ 5.35	10.0	3
MMSZ4690	CV	5.6	50	5.32 ~ 5.88	10.0	4
MMSZ4691	CA	6.2	50	5.89 ~ 6.51	10.0	5
MMSZ4692	CX	6.8	50	6.46 ~ 7.14	10.0	5.1
MMSZ4693	CY	7.5	50	7.13 ~ 7.87	10.0	5.7
MMSZ4694	CZ	8.2	50	7.79 ~ 8.61	1.0	6.2
MMSZ4695	DC	8.7	50	8.27 ~ 9.13	1.0	6.6
MMSZ4696	DD	9.1	50	8.65 ~ 9.55	1.0	6.9
MMSZ4697	DE	10	50	9.50 ~ 10.5	1.0	7.6
MMSZ4698	DF	11	50	10.45 ~ 11.55	0.05	8.4
MMSZ4699	DH	12	50	11.40 ~ 12.60	0.05	9.1
MMSZ4700	DJ	13	50	12.35 ~ 13.65	0.05	9.8
MMSZ4701	DK	14	50	13.30 ~ 14.70	0.05	10.6
MMSZ4702	DM	15	50	14.25 ~ 15.75	0.05	11.4
MMSZ4703	DN	16	50	15.20 ~ 16.80	0.05	12.1
MMSZ4704	DP	17	50	16.15 ~ 17.85	0.05	12.9
MMSZ4705	DT	18	50	17.10 ~ 18.90	0.05	13.6
MMSZ4706	DU	19	50	18.05 ~ 19.95	0.05	14.4
MMSZ4707	DV	20	50	19.00 ~ 21.00	0.01	15.2
MMSZ4708	DA	22	50	20.90 ~ 23.10	0.01	16.7
MMSZ4709	DX	24	50	22.80 ~ 25.20	0.01	18.2
MMSZ4710	DY	25	50	23.75 ~ 26.25	0.01	19
MMSZ4711	EA	27	50	25.65 ~ 28.35	0.01	20.4
MMSZ4712	EC	28	50	26.60 ~ 29.40	0.01	21.2
MMSZ4713	ED	30	50	28.50 ~ 31.50	0.01	22.8
MMSZ4714	EE	33	50	31.35 ~ 34.65	0.01	25
MMSZ4715	EF	36	50	34.20 ~ 37.80	0.01	27.3
MMSZ4716	EH	39	50	37.05 ~ 40.95	0.01	29.6
MMSZ4717	EJ	43	50	40.85 ~ 45.15	0.01	32.6

Nominal Zener voltage is measured with the device junction in thermal equilibrium @ $T_j = 30^\circ\text{C} \pm 1^\circ\text{C}$



Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
MMSZ4678 ~ MMSZ4717	SOD-123	3000 pcs / reel	---

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