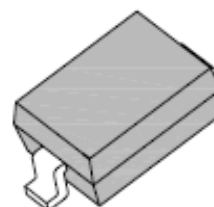


500mW Two Terminals SMD Zener Diodes

Features

- Silicon Planar Zener Construction
- 500mW Power Dissipation
- Zener Voltage 2.4v to 43v
- High Temperature Soldering Guaranteed:
250 °C/10 Seconds Set Terminals
- RoHS Compliance



SOD-123



Mechanical Data

Case:	SOD-123, molded plastic
Epoxy:	Plastic package has UL flammability 94V-0
Terminals:	Solderable per MIL-STD-202G, Method 208
Polarity:	Color band denotes cathode
Approx Weight:	0.01 grams

Maximum Ratings ($T_{Ambient}=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	Value	Unit	Conditions
P_{tot}	Power Dissipation	500	mW	T _A =25 °C (Note 1)
R_{thJA}	Thermal Resistance Junction to Ambient Air	340	°C/W	(Note 2)
T_J	Max. Junction Temperature	150	°C	
T_{STG}	Storage Temperature Range	-55 to 150	°C	

Note: 1. Mounted on 5.0mm²(.013mm thick) land areas.

2. On FR-4 or FR-5 board with minimum recommended solder pad layout.

500mW Two Terminals SMD Zener Diodes

MMSZ4681 – MMSZ4717

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Part NO.	Marking Code	Nominal Zener Voltage @ I _{ZT}			Test Current	Max. Reverse Leakage Current I _R @ V _R	
		V _Z (V)			I _{ZT} (mA)		
		Nom.	Min.	Max.			
MMSZ4681	CF	2.4	2.28	2.52	0.05	2.00	1.0
MMSZ4682	CH	2.7	2.57	2.84	0.05	1.00	1.0
MMSZ4683	CJ	3.0	2.85	3.15	0.05	0.80	1.0
MMSZ4684	CK	3.3	3.14	3.47	0.05	7.50	1.5
MMSZ4685	CM	3.6	3.42	3.78	0.05	7.50	2.0
MMSZ4686	CN	3.9	3.71	4.10	0.05	5.00	2.0
MMSZ4687	CP	4.3	4.09	4.52	0.05	4.00	2.0
MMSZ4688	CT	4.7	4.47	4.94	0.05	10.0	3.0
MMSZ4689	CU	5.1	4.85	5.36	0.05	10.0	3.0
MMSZ4690	CV	5.6	5.32	5.88	0.05	10.0	4.0
MMSZ4691	CA	6.2	5.89	6.51	0.05	10.0	5.0
MMSZ4692	CX	6.8	6.46	7.14	0.05	10.0	5.1
MMSZ4693	CY	7.5	7.13	7.88	0.05	10.0	5.7
MMSZ4694	CZ	8.2	7.79	8.61	0.05	1.00	6.2
MMSZ4695	DC	8.7	8.27	9.14	0.05	1.00	6.6
MMSZ4696	DD	9.1	8.65	9.56	0.05	1.00	6.9
MMSZ4697	DE	10	9.5	10.5	0.05	1.00	7.6
MMSZ4698	DF	11	10.5	11.6	0.05	0.05	8.4
MMSZ4699	DH	12	11.4	12.6	0.05	0.05	9.1
MMSZ4700	DJ	13	12.4	13.7	0.05	0.05	9.8
MMSZ4701	DK	14	13.3	14.7	0.05	0.05	10.6
MMSZ4702	DM	15	14.3	15.8	0.05	0.05	11.4
MMSZ4703	DN	16	15.2	16.8	0.05	0.05	12.1
MMSZ4704	DP	17	16.2	17.9	0.05	0.05	12.9
MMSZ4705	DT	18	17.1	18.9	0.05	0.05	13.6
MMSZ4706	DU	19	18.1	20.0	0.05	0.05	14.4
MMSZ4707	DV	20	19.0	21.0	0.05	0.01	15.2
MMSZ4708	DA	22	20.9	23.1	0.05	0.01	16.7
MMSZ4709	DZ	24	22.8	25.2	0.05	0.01	18.2
MMSZ4710	DY	25	23.8	26.3	0.05	0.01	19.0
MMSZ4711	EA	27	25.7	28.4	0.05	0.01	20.4
MMSZ4712	EC	28	26.6	29.4	0.05	0.01	21.2

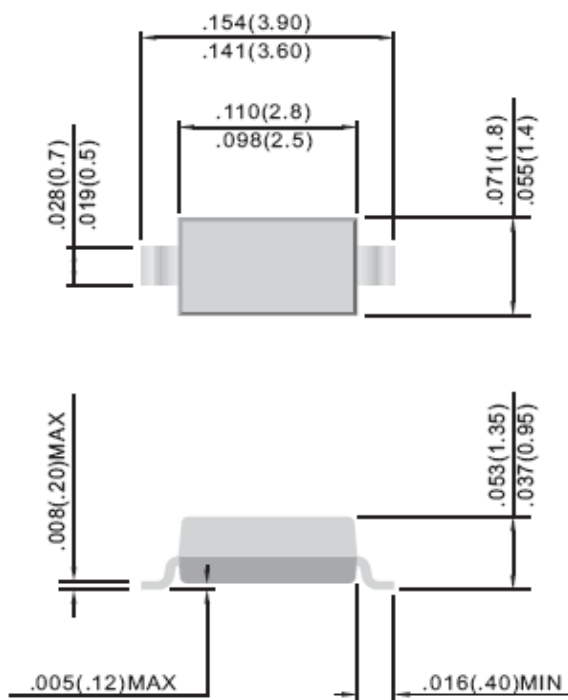
500mW Two Terminals SMD Zener Diodes

MMSZ4681 - MMSZ4717

Part NO.	Marking Code	Nominal Zener Voltage @ I _{ZT}			Test Current	Max. Reverse Leakage Current I _R @ V _R	
		V _Z (V)			I _{ZT} (mA)		
		Nom.	Min.	Max.		I _R (μA)	V _R (V)
MMSZ4713	ED	30	28.5	31.5	0.05	0.01	22.8
MMSZ4714	EE	33	31.4	34.7	0.05	0.01	25.0
MMSZ4715	EF	36	34.2	37.8	0.05	0.01	27.3
MMSZ4716	EH	39	37.1	41.0	0.05	0.01	29.6
MMSZ4717	EJ	43	40.9	45.2	0.05	0.01	32.6

Dimensions in inch (mm)

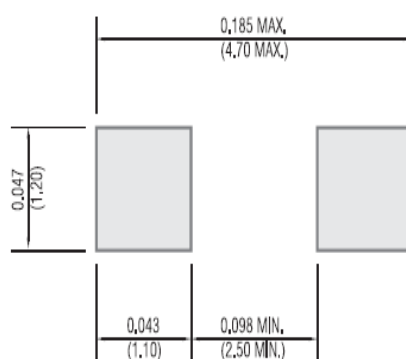
SOD-123



500mW Two Terminals SMD Zener Diodes

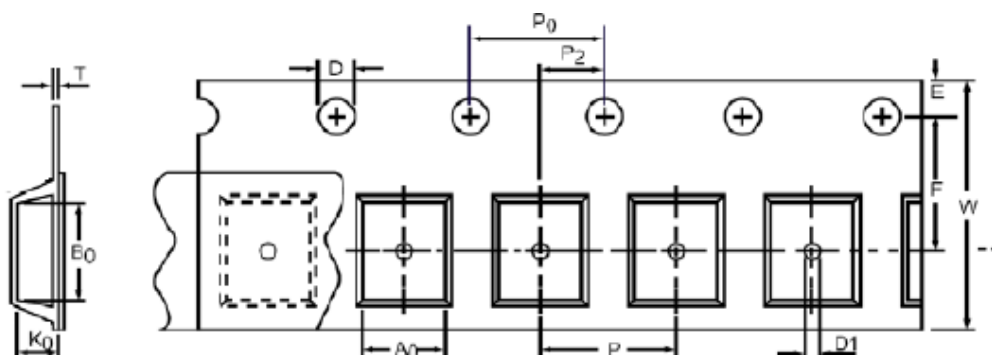
MMSZ4681 – MMSZ4717

Mounting Pad Layout in inch (mm)



Packing Information:

Carrier Tape Dimensions (in mm)



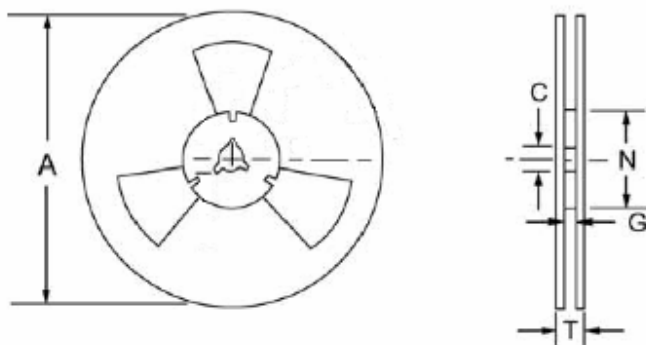
Product Type	A0	B0	K0	D	P0	P
	See Note			1.55±0.05	4.0±0.1	4.0±0.1
SOD-123	W	E	T	D1	F	P2
	8.0+0.15/-0.3	1.75±0.10	0.20±0.05	1.0±0.1	3.5±0.05	2.0±0.05

Note: Symbol A0, B0, K0 are determined by the maximum dimensions of the component size.
The clearance between the component and the cavity must be within
0.05 mm (0.002") min. to 0.50 mm (0.02") max. for 8 mm tape.

500mW Two Terminals SMD Zener Diodes

MMSZ4681 – MMSZ4717

Reel Dimensions (in mm)



A	C	G	N	T
178.0±2.0	13.5±1.0	9.9 max.	50 min.	14.4 max.

Packing Quantity Information:

Quantity	PCS per Inner Box	PCS per Carton
TR70 Tape & Reel	3000/Reel	240000

Carton Size Information:

Cartoon Size
390X270X400 (in mm)

500mW Two Terminals SMD Zener Diodes

MMSZ4681 – MMSZ4717

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