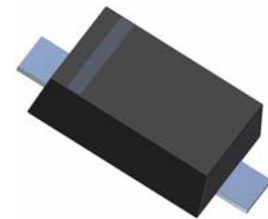


500mW SOD-123 SURFACE MOUNT Flat Lead Surface Mount Plastic Package Zener Voltage Regulators

Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	500	mW
T_{STG}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_{OPR}	Operating Temperature Range	-65 to +150	$^\circ\text{C}$

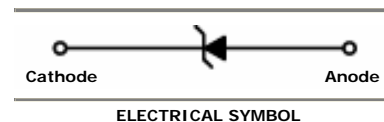
These ratings are limiting values above which the serviceability of the diode may be impaired.



SOD-123 Flat Lead

Specification Features:

- Wide Zener Voltage Range Selection, 2.4V to 75V
- VZ Tolerance Selection of $\pm 2\%$ (B Series)
- Flat Lead SOD-123 Plastic Package
- Surface Device Type Mounting
- Moisture Sensitivity Level 1
- Clip Bonding Construction, Good Thermal Capability
- RoHS Compliant
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode



Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Device Type	Device Marking	$V_Z @ I_{ZT}$ (Volts)			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK} @ I_{ZK}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
		Min	Nom	Max						
TCMMSZ2V4B	2V4B	2.35	2.4	2.45	5	100	1	564	45	1
TCMMSZ2V7B	2V7B	2.65	2.7	2.75	5	100	1	564	18	1
TCMMSZ3V0B	3V0B	2.94	3.0	3.06	5	100	1	564	9	1
TCMMSZ3V3B	3V3B	3.23	3.3	3.37	5	95	1	564	4.5	1
TCMMSZ3V6B	3V6B	3.53	3.6	3.67	5	90	1	564	4.5	1
TCMMSZ3V9B	3V9B	3.82	3.9	3.98	5	90	1	564	2.7	1
TCMMSZ4V3B	4V3B	4.21	4.3	4.39	5	90	1	564	2.7	1
TCMMSZ4V7B	4V7B	4.61	4.7	4.79	5	80	1	470	2.7	2
TCMMSZ5V1B	5V1B	5.00	5.1	5.20	5	60	1	451	1.8	2
TCMMSZ5V6B	5V6B	5.49	5.6	5.71	5	40	1	376	0.9	2
TCMMSZ6V2B	6V2B	6.08	6.2	6.32	5	10	1	141	2.7	4
TCMMSZ6V8B	6V8B	6.66	6.8	6.94	5	15	1	75	1.8	4
TCMMSZ7V5B	7V5B	7.35	7.5	7.65	5	15	1	75	0.9	5
TCMMSZ8V2B	8V2B	8.04	8.2	8.36	5	15	1	75	0.63	5
TCMMSZ9V1B	9V1B	8.92	9.1	9.28	5	15	1	94	0.45	6
TCMMSZ10VB	10VB	9.80	10	10.20	5	20	1	141	0.18	7
TCMMSZ11VB	11VB	10.78	11	11.22	5	20	1	141	0.09	8
TCMMSZ12VB	12VB	11.76	12	12.24	5	25	1	141	0.09	8
TCMMSZ13VB	13VB	12.74	13	13.26	5	30	1	160	0.09	8
TCMMSZ15VB	15VB	14.70	15	15.30	5	30	1	188	0.045	10.5
TCMMSZ16VB	16VB	15.68	16	16.32	5	40	1	188	0.045	11.2
TCMMSZ18VB	18VB	17.64	18	18.36	5	45	1	212	0.045	12.6
TCMMSZ20VB	20VB	19.60	20	20.40	5	55	1	212	0.045	14.0

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

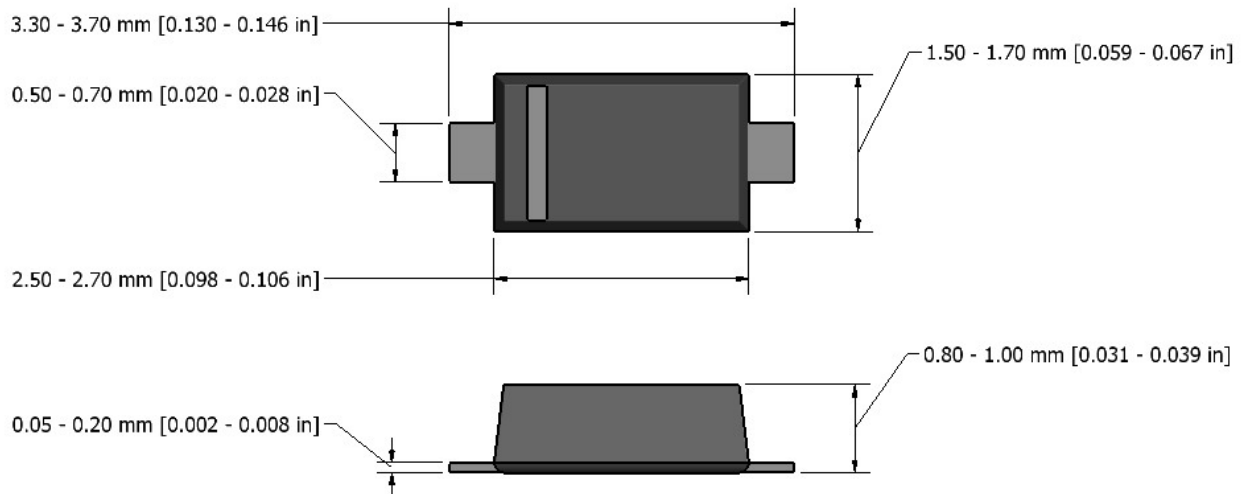
Device Type	Device Marking	$V_Z @ I_{ZT}$ (Volts)			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK} @ I_{ZK}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
		Min	Nom	Max						
TCMMSZ22VB	22VB	21.56	22	22.44	5	55	1	235	0.045	15.4
TCMMSZ24VB	24VB	23.52	24	24.48	5	70	1	235	0.045	16.8
TCMMSZ27VB	27VB	26.46	27	27.54	5	80	0.5	282	0.045	18.9
TCMMSZ30VB	30VB	29.40	30	30.60	5	80	0.5	282	0.045	21.0
TCMMSZ33VB	33VB	32.34	33	33.66	5	80	0.5	306	0.045	23.0
TCMMSZ36VB	36VB	35.28	36	36.72	5	90	0.5	329	0.045	25.2
TCMMSZ39VB	39VB	38.22	39	39.78	5	130	0.5	329	0.045	27.3
TCMMSZ43VB	43VB	42.14	43	43.86	5	150	0.5	353	0.045	30.1
TCMMSZ47VB	47VB	46.06	47	47.94	5	170	0.5	353	0.045	33.0
TCMMSZ51VB	51VB	49.98	51	52.02	5	180	0.5	376	0.045	35.7
TCMMSZ56VB	56VB	54.88	56	57.12	5	200	0.5	400	0.045	39.2
TCMMSZ62VB	62VB	60.76	62	63.24	5	215	0.5	423	0.045	43.4
TCMMSZ68VB	68VB	66.64	68	69.36	5	240	0.5	447	0.045	47.6
TCMMSZ75VB	75VB	73.50	75	76.50	5	255	0.5	470	0.045	52.5

V_F Forward Voltage = 900mV Maximum @ $I_F = 10$ mA for all types

Notes:

1. The Zener Voltage (V_Z) is tested under pulse condition of 10mS.
2. The device numbers listed have a standard tolerance on the nominal zener voltage of $\pm 2\%$.
3. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.
4. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK} .


Flat Lead SOD-123 Package Outline



This datasheet presents technical data of Tak Cheong's Zener Diodes. Complete specifications for the individual devices are provided in the form of datasheets. A comprehensive Selector Guide is included to simplify the task of choosing the best set of components required for a specific application. For additional information, please visit our website <http://www.takcheong.com>.

Although information in this datasheet has been carefully checked, no responsibility for the inaccuracies can be assumed by Tak Cheong. Please consult your nearest Tak Cheong's sales office for further assistance.

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