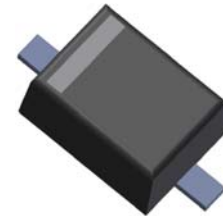


200mW SOD-323 SURFACE MOUNT Small Outline Flat Lead Plastic Package Zener Voltage Regulators

Absolute Maximum Ratings T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P _D	Power Dissipation	200	mW
T _{STG}	Storage Temperature Range	-65 to +150	°C
T _{OPR}	Operating Temperature Range	-65 to +150	°C

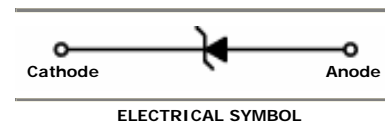
These ratings are limiting values above which the serviceability of the diode may be impaired.



SOD-323 Flat Lead

Specification Features:

- Wide Zener Voltage Range Selection, 2.4V to 56V
- V_Z Tolerance Selection of ±5%
- Flat Lead SOD-323 Small Outline 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°C unless otherwise noted

Device Type	Device Marking	V _Z @ I _{ZT} (Volts) (Note 1)			I _{ZT} (mA)	Z _{ZT} @ I _{ZT} (Ω) Max	Z _{ZK} @ I _{ZK} = 0.25mA (Ω) Max	I _R @ V _R (μA) Max	V _R (Volts)
		Min	Nom	Max					
MMSZ5221BS	2V4	2.28	2.4	2.52	20	30	1200	100	1
MMSZ5222BS	2V5	2.38	2.5	2.63	20	30	1250	100	1
MMSZ5223BS	2V7	2.57	2.7	2.84	20	30	1300	75	1
MMSZ5224BS	2V8	2.66	2.8	2.94	20	30	1400	75	1
MMSZ5225BS	3V0	2.85	3.0	3.15	20	29	1600	50	1
MMSZ5226BS	3V3	3.14	3.3	3.47	20	28	1600	25	1
MMSZ5227BS	3V6	3.42	3.6	3.78	20	24	1700	15	1
MMSZ5228BS	3V9	3.71	3.9	4.10	20	23	1900	10	1
MMSZ5229BS	4V3	4.09	4.3	4.52	20	22	2000	5	1
MMSZ5230BS	4V7	4.47	4.7	4.94	20	19	1900	5	2
MMSZ5231BS	5V1	4.85	5.1	5.36	20	17	1600	5	2
MMSZ5232BS	5V6	5.32	5.6	5.88	20	11	1600	5	3
MMSZ5233BS	6V0	5.70	6.0	6.30	20	7	1600	5	3.5
MMSZ5234BS	6V2	5.89	6.2	6.51	20	7	1000	5	4
MMSZ5235BS	6V8	6.46	6.8	7.14	20	5	750	3	5
MMSZ5236BS	7V5	7.13	7.5	7.88	20	6	500	3	6
MMSZ5237BS	8V2	7.79	8.2	8.61	20	8	500	3	6.5
MMSZ5238BS	8V7	8.27	8.7	9.14	20	8	600	3	6.5
MMSZ5239BS	9V1	8.65	9.1	9.56	20	10	600	3	7
MMSZ5240BS	10V	9.50	10	10.50	20	17	600	3	8
MMSZ5241BS	11V	10.45	11	11.55	20	22	600	2	8.4
MMSZ5242BS	12V	11.40	12	12.60	20	30	600	1	9.1
MMSZ5243BS	13V	12.35	13	13.65	9.5	13	600	0.5	9.9

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

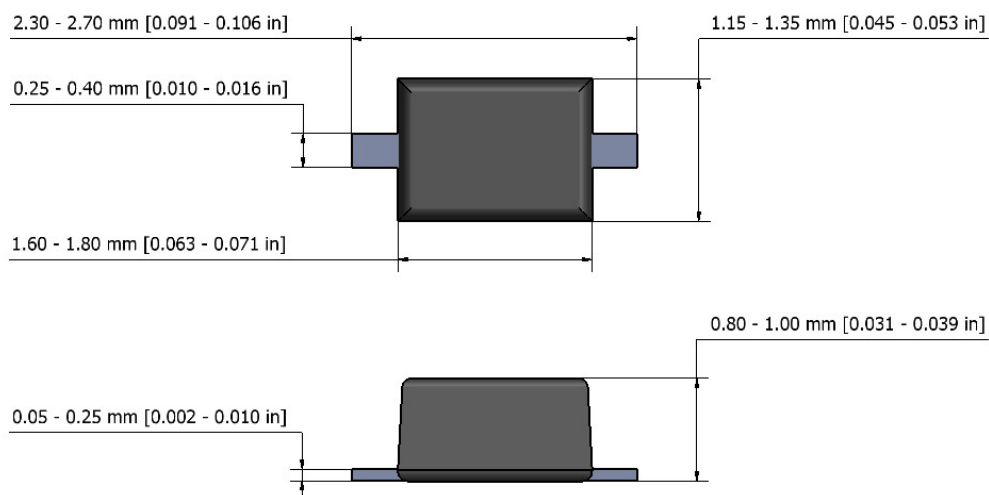
Device Type	Device Marking	$V_Z @ I_{ZT}$ (Volts) (Note 1)			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	$Z_{ZK} @ I_{ZK} = 0.25\text{mA}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
		Min	Nom	Max					
MMSZ5244BS	14V	13.30	14	14.70	9	15	600	0.1	10
MMSZ5245BS	15V	14.25	15	15.75	8.5	16	600	0.1	11
MMSZ5246BS	16V	15.20	16	16.80	7.8	17	600	0.1	12
MMSZ5247BS	17V	16.15	17	17.85	7.4	19	600	0.1	13
MMSZ5248BS	18V	17.10	18	18.90	7	21	600	0.1	14
MMSZ5249BS	19V	18.05	19	19.95	6.6	23	600	0.1	14
MMSZ5250BS	20V	19.00	20	21.00	6.2	25	600	0.1	15
MMSZ5251BS	22V	20.90	22	23.10	5.6	29	600	0.1	17
MMSZ5252BS	24V	22.80	24	25.20	5.2	33	600	0.1	18
MMSZ5253BS	25V	23.75	25	26.25	5	35	600	0.1	19
MMSZ5254BS	27V	25.65	27	28.35	4.6	41	600	0.1	21
MMSZ5255BS	28V	26.60	28	29.40	4.5	44	600	0.1	21
MMSZ5256BS	30V	28.50	30	31.50	4.2	49	600	0.1	23
MMSZ5257BS	33V	31.35	33	34.65	3.8	58	700	0.1	25
MMSZ5258BS	36V	34.20	36	37.80	3.4	70	700	0.1	27
MMSZ5259BS	39V	37.05	39	40.95	3.2	80	800	0.1	30
MMSZ5260BS	43V	40.85	43	45.15	3	93	900	0.1	33
MMSZ5261BS	47V	44.65	47	49.35	2.7	105	1000	0.1	36
MMSZ5262BS	51V	48.45	51	53.55	2.5	125	1100	0.1	39
MMSZ5263BS	56V	53.20	56	58.80	2.2	150	1300	0.1	43

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 1mS.
2. The device numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
3. 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} .
4. 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.

SOD-323 Package Outline




NOTE: The above package outline is similar to JEITA SC-90.

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>.

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