

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

Green Product

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

Symbol	Parameter	Value	Units
P_D	Power Dissipation	200	mW
T_{STG}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_{OPR}	Operating Temperature Range	-65 to +150	$^\circ\text{C}$

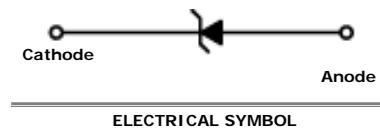
These ratings are limiting values above which the serviceability of the diode may be impaired.



SOD-323 Gull Wing Lead

Specification Features:

- Wide Zener Voltage Range Selection, 4.3V to 75V
- VZ Tolerance Selection of $\pm 2\%$
- Gull Wing Lead SOD-323 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode
- Weight: approx. 0.004g



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	$Z_{ZK} @ I_{ZK} = 0.25\text{mA}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
		Min	Nom	Max					
MMSZ5229CSWG	229C	4.214	4.3	4.386	20	22	2000	5	1
MMSZ5230CSWG	230C	4.606	4.7	4.794	20	19	1900	5	2
MMSZ5231CSWG	231C	4.998	5.1	5.202	20	17	1600	5	2
MMSZ5232CSWG	232C	5.488	5.6	5.712	20	11	1600	5	3
MMSZ5233CSWG	233C	5.88	6.0	6.12	20	7	1600	5	3.5
MMSZ5234CSWG	234C	6.076	6.2	6.324	20	7	1000	5	4
MMSZ5235CSWG	235C	6.664	6.8	6.936	20	5	750	3	5
MMSZ5236CSWG	236C	7.35	7.5	7.65	20	6	500	3	6
MMSZ5237CSWG	237C	8.036	8.2	8.364	20	8	500	3	6.5
MMSZ5238CSWG	238C	8.526	8.7	8.874	20	8	600	3	6.5
MMSZ5239CSWG	239C	8.918	9.1	9.282	20	10	600	3	7
MMSZ5240CSWG	240C	9.8	10	10.2	20	17	600	3	8
MMSZ5241CSWG	241C	10.78	11	11.22	20	22	600	2	8.4
MMSZ5242CSWG	242C	11.76	12	12.24	20	30	600	1	9.1
MMSZ5243CSWG	243C	12.74	13	13.26	9.5	13	600	0.5	9.9
MMSZ5244CSWG	244C	13.72	14	14.28	9	15	600	0.1	10
MMSZ5245CSWG	245C	14.7	15	15.3	8.5	16	600	0.1	11
MMSZ5246CSWG	246C	15.68	16	16.32	7.8	17	600	0.1	12
MMSZ5247CSWG	247C	16.66	17	17.34	7.4	19	600	0.1	13
MMSZ5248CSWG	248C	17.64	18	18.36	7	21	600	0.1	14
MMSZ5249CSWG	249C	18.62	19	19.38	6.6	23	600	0.1	14
MMSZ5250CSWG	250C	19.6	20	20.4	6.2	25	600	0.1	15

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

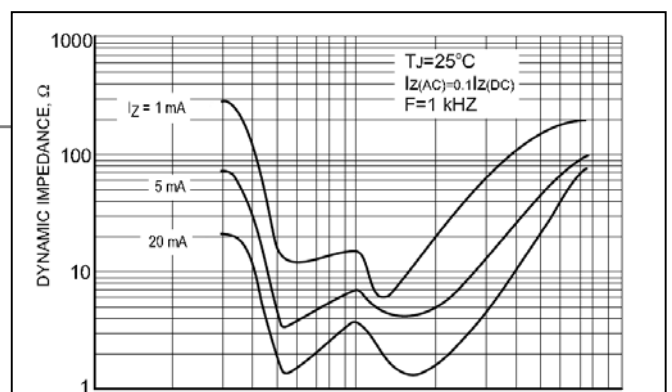
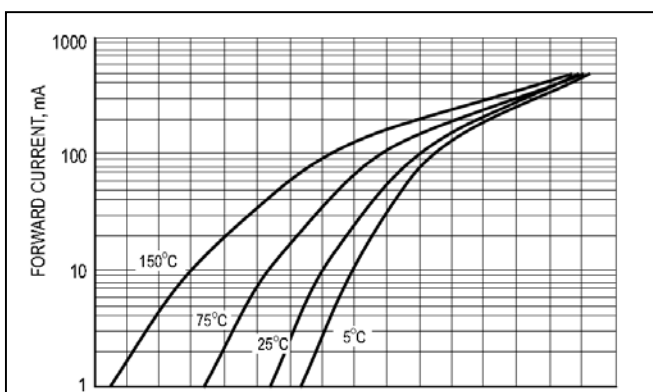
Device Type	Device Marking	$V_Z @ I_{ZT}$ (Volts)			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	$Z_{ZK} @ I_{ZK} = 0.25\text{mA}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
		Min	Nom	Max					
MMSZ5251CSWG	251C	21.56	22	22.44	5.6	29	600	0.1	17
MMSZ5252CSWG	252C	23.52	24	24.48	5.2	33	600	0.1	18
MMSZ5253CSWG	253C	24.5	25	25.5	5	35	600	0.1	19
MMSZ5254CSWG	254C	26.46	27	27.54	4.6	41	600	0.1	21
MMSZ5255CSWG	255C	27.44	28	28.56	4.5	44	600	0.1	21
MMSZ5256CSWG	256C	29.4	30	30.6	4.2	49	600	0.1	23
MMSZ5257CSWG	257C	32.34	33	33.66	3.8	58	700	0.1	25
MMSZ5258CSWG	258C	35.28	36	36.72	3.4	70	700	0.1	27
MMSZ5259CSWG	259C	38.22	39	39.78	3.2	80	800	0.1	30
MMSZ5260CSWG	260C	42.14	43	43.86	3	93	900	0.1	33
MMSZ5261CSWG	261C	46.06	47	47.94	2.7	105	1000	0.1	36
MMSZ5262CSWG	262C	49.98	51	52.02	2.5	125	1100	0.1	39
MMSZ5263CSWG	263C	54.88	56	57.12	2.2	150	1300	0.1	43
MMSZ5264CSWG	264C	58.8	60	61.2	2.1	170	1400	0.1	46
MMSZ5265CSWG	265C	60.76	62	63.24	2.0	185	1400	0.1	47
MMSZ5266CSWG	266C	66.64	68	69.36	1.8	230	1600	0.1	52
MMSZ5267CSWG	267C	73.5	75	76.5	1.7	270	1700	0.1	56

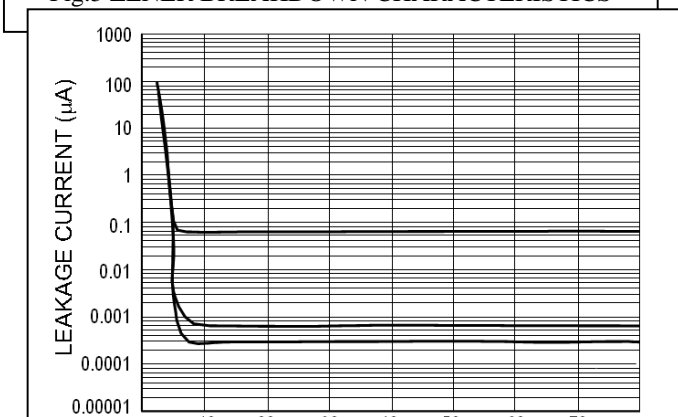
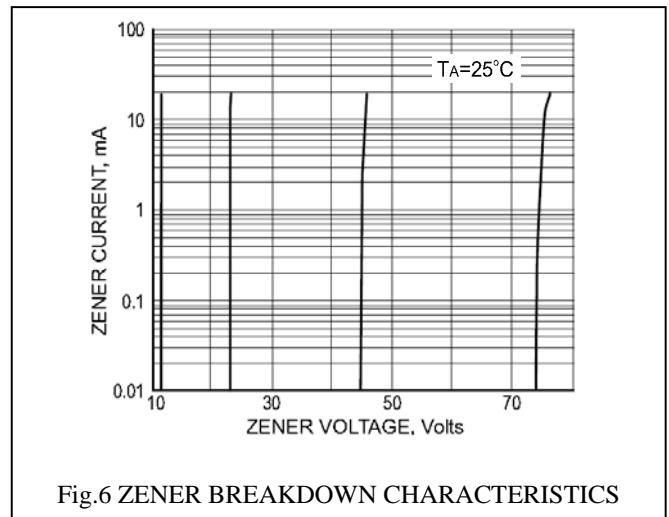
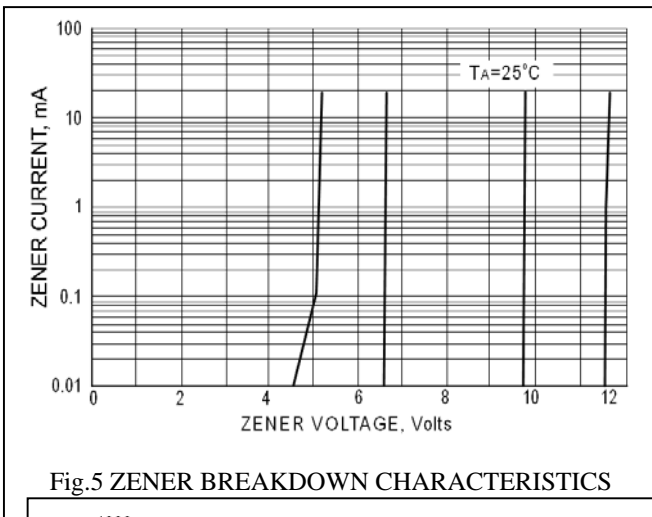
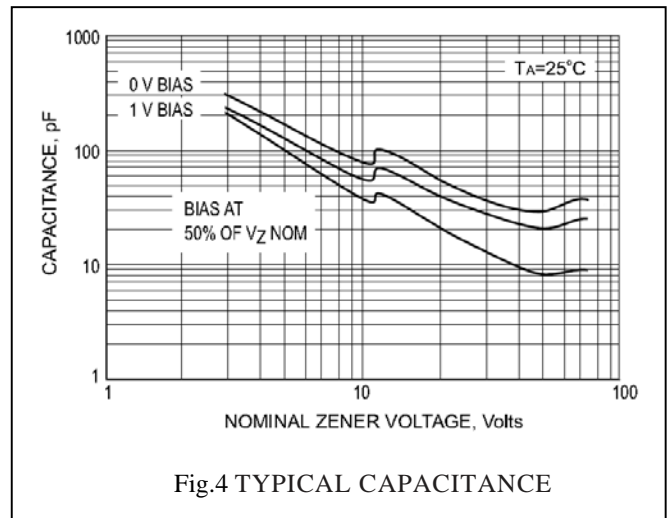
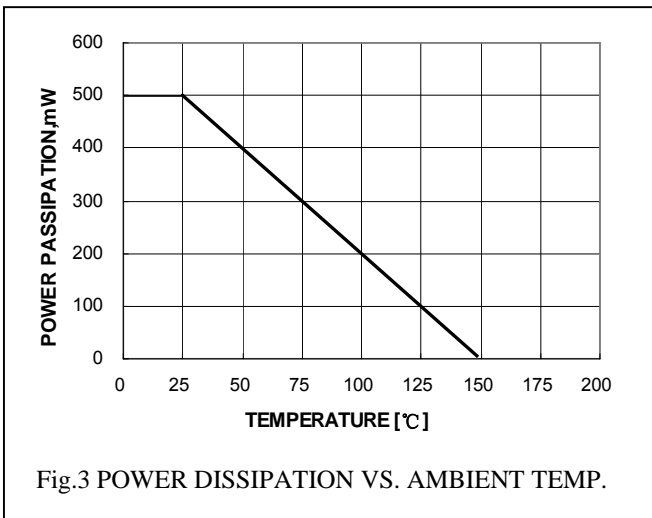
V_F Forward Voltage = 900mV Maximum @ $I_F = 10\text{ mA}$ for all types

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} .

RATING AND CHARACTERISTIC CURVES



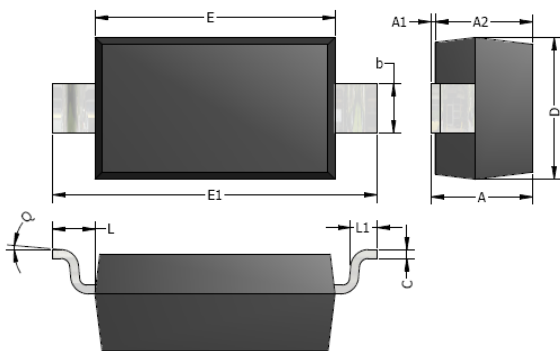


+150°C

+25°C

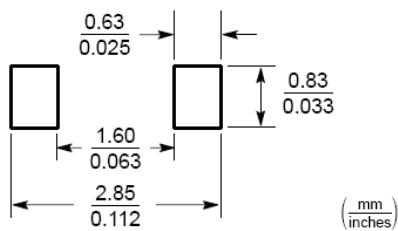
-55°C

SOD-323 Gull Wing Lead Package Outline



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.80	1.00	0.031	0.039
A1	0.00	0.10	0.000	0.004
A2	0.80	0.90	0.031	0.035
b	0.30	0.40	0.012	0.016
c	0.08	0.15	0.003	0.006
D	1.20	1.40	0.047	0.055
E	1.60	1.80	0.063	0.071
E1	2.50	2.70	0.098	0.106
L	0.475 REF.		0.019 REF.	
L1	0.25	0.40	0.010	0.016
θ	0°	8°	0°	8°

Typical Soldering Pattern:



Note:

Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

NOTICE

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