

Surface mount zener diode

TMMSZ5221BG-TMMSZ5267BG

FEATURES

- Planar die construction.
- 500mW power dissipation.
- General purpose, medium current.
- Ideally suited for automated assembly processes.
- Qualified to AEC-Q101 Standards for High Reliability

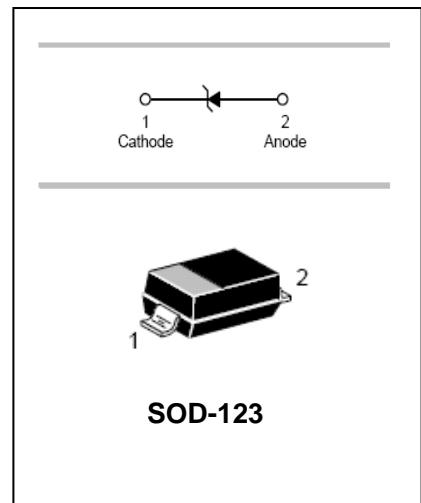


Lead-free



APPLICATIONS

- Zener diode.
- Ultra-small surface mount package.



ORDERING INFORMATION

Type No.	Marking	Package Code
TMMSZ5221BG-TMMSZ5267BG	See table 2	SOD-123

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage @ I _F =10mA	V _F	0.9	V
Power Dissipation	P _d	500	mW
Thermal resistance, junction to ambient air	R _{θJA}	350	°C/W
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-65 to +150	°C

Notes: 1. Device mounted on ceramic PCB; 7.6 mm x 9.4 mm x 0.87 mm with pad areas 25 mm².

2. Tested with pulses, T_p ≤ 1.0ms.

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

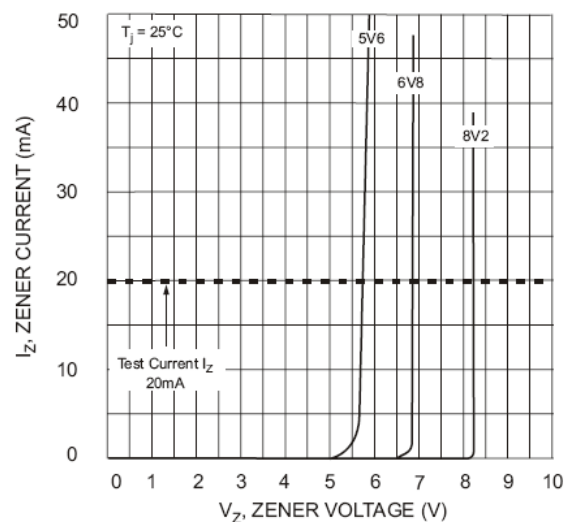
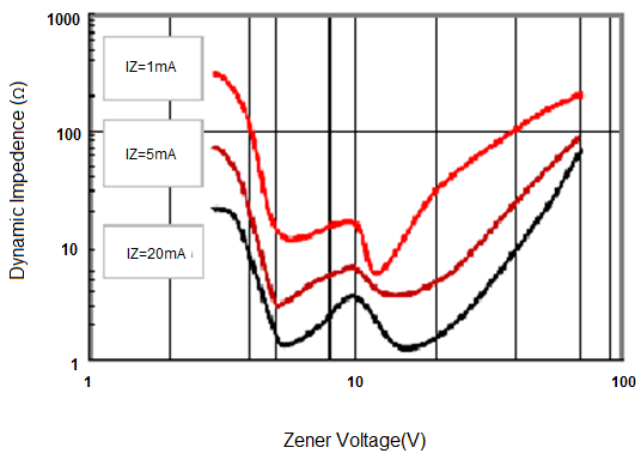
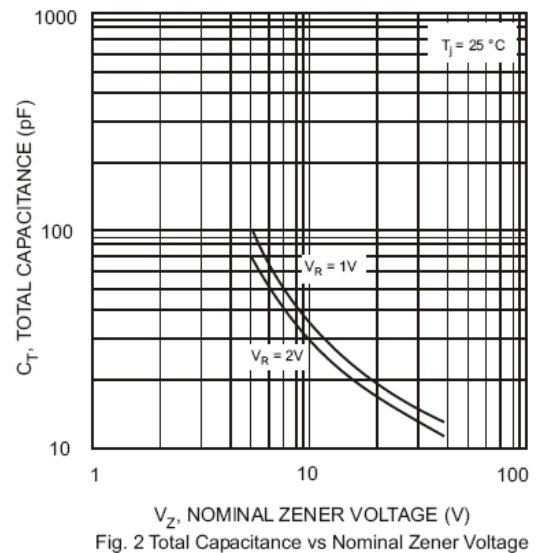
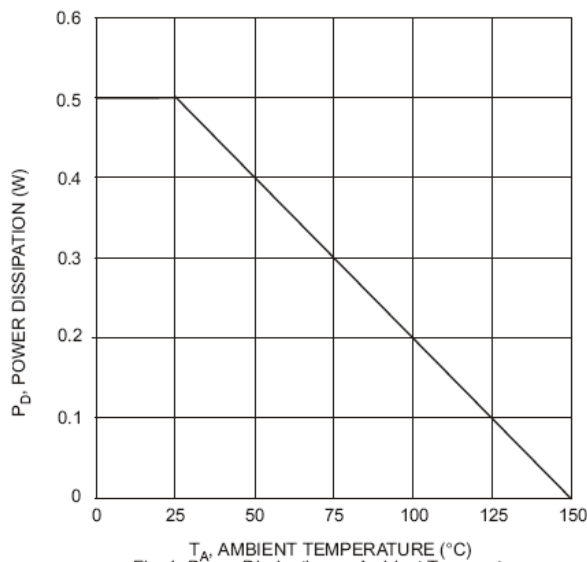
Type Number	Type Code	Zener Voltage Range			Test Current	Maximum Zener Impedance		Maximum Reverse Leakage Current	
		V _Z @I _{ZT}				I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK} =0.25mA	I _R
		Nom(V)	Min(V)	Max(V)	mA	Ω		μA	V
TMMSZ5221BG	C1	2.4	2.28	2.52	20	30	1200	100	1.0
TMMSZ5223BG	C3	2.7	2.57	2.84	20	30	1300	75	1.0
TMMSZ5225BG	C5	3.0	2.85	3.15	20	30	1600	50	1.0
TMMSZ5226BG	G1	3.3	3.14	3.47	20	28	1600	25	1.0
TMMSZ5227BG	G2	3.6	3.42	3.78	20	24	1700	15	1.0
TMMSZ5228BG	G3	3.9	3.71	4.10	20	23	1900	10	1.0
TMMSZ5229BG	G4	4.3	4.09	4.52	20	22	2000	5.0	1.0
TMMSZ5230BG	G5	4.7	4.47	4.94	20	19	1900	5.0	2.0
TMMSZ5231BG	E1	5.1	4.85	5.36	20	17	1600	5.0	2.0
TMMSZ5232BG	E2	5.6	5.32	5.88	20	11	1600	5.0	3.0
TMMSZ5233BG	E3	6.0	5.70	6.30	20	7	1600	5.0	3.5
TMMSZ5234BG	E4	6.2	5.89	6.51	20	7	1000	5.0	4.0
TMMSZ5235BG	E5	6.8	6.46	7.14	20	5	750	3.0	5.0
TMMSZ5236BG	F1	7.5	7.13	7.88	20	6	500	3.0	6.0
TMMSZ5237BG	F2	8.2	7.79	8.61	20	8	500	3.0	6.5
TMMSZ5238BG	F3	8.7	8.27	9.14	20	8	600	3.0	6.5
TMMSZ5239BG	F4	9.1	8.65	9.56	20	10	600	3.0	7.0
TMMSZ5240BG	F5	10	9.50	10.50	20	17	600	3.0	8.0
TMMSZ5241BG	H1	11	10.45	11.55	20	22	600	2.0	8.4
TMMSZ5242BG	H2	12	11.40	12.60	20	30	600	1.0	9.1
TMMSZ5243BG	H3	13	12.35	13.65	9.5	13	600	0.5	9.9
TMMSZ5244BG	H4	14	13.30	14.70	9.0	15	600	0.1	10.0
TMMSZ5245BG	H5	15	14.25	15.75	8.5	16	600	0.1	11
TMMSZ5246BG	J1	16	15.20	16.80	7.8	17	600	0.1	12
TMMSZ5247BG	J2	17	16.15	17.85	7.5	19	600	0.1	13
TMMSZ5248BG	J3	18	17.10	18.90	7.0	21	600	0.1	14
TMMSZ5250BG	J5	20	19.00	21.00	6.2	25	600	0.1	15
TMMSZ5251BG	K1	22	20.90	23.10	5.6	29	600	0.1	17
TMMSZ5252BG	K2	24	22.80	25.20	5.2	33	600	0.1	18
TMMSZ5254BG	K4	27	25.65	28.35	5.0	41	600	0.1	21
TMMSZ5255BG	K5	28	26.60	29.40	4.5	44	600	0.1	21
TMMSZ5256BG	M1	30	28.50	31.5	4.2	49	600	0.1	23
TMMSZ5257BG	M2	33	31.35	34.65	3.8	58	700	0.1	25
TMMSZ5258BG	M3	36	34.20	37.80	3.4	70	700	0.1	27
TMMSZ5259BG	M4	39	37.05	40.95	3.2	80	800	0.1	30

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Type Number	Type Code	Zener Voltage Range			Test Current	Maximum Zener Impedance		Maximum Reverse Leakage Current	
		$V_z@I_{ZT}$				I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}=0.25mA$	I_R
		Nom(V)	Min(V)	Max(V)	mA	Ω		μA	V
TMMSZ5260BG	M5	43	40.85	45.15	3.0	93	900	0.1	33
TMMSZ5261BG	N1	47	44.65	49.35	2.7	105	1000	0.1	36
TMMSZ5262BG	N2	51	48.45	53.55	2.5	125	1100	0.1	39
TMMSZ5263BG	M8	56	53.2	58.8	2.2	150	1300	0.1	43
TMMSZ5265BG	N5	62	58.90	65.10	2.0	185	1400	0.1	47
TMMSZ5267BG	P2	75	71.25	78.75	1.7	270	1700	0.1	56

TYPICAL CHARACTERISTICS @ $T_a=25^\circ C$ unless otherwise specified



Surface mount zener diode

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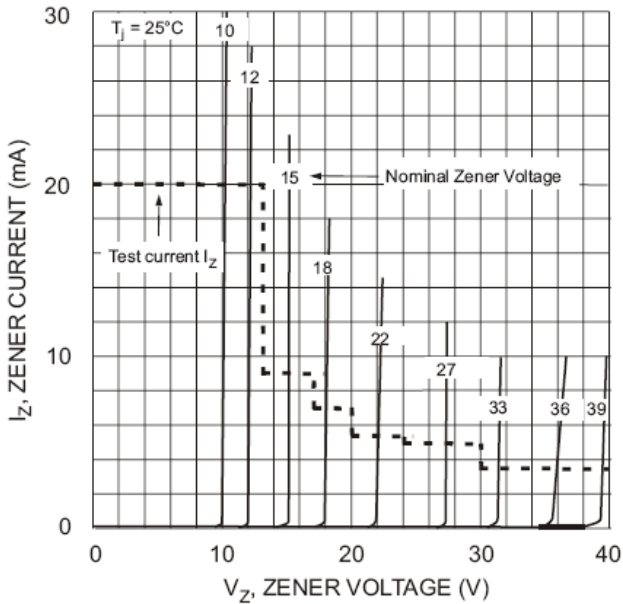


Fig. 5 Zener Breakdown Characteristics

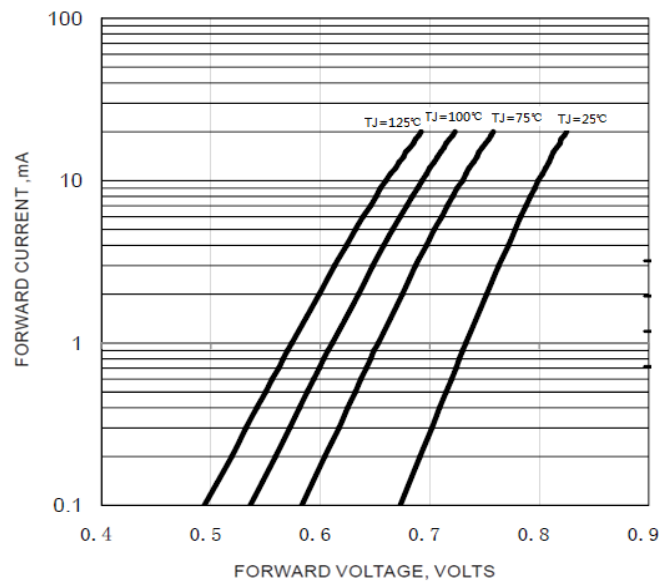
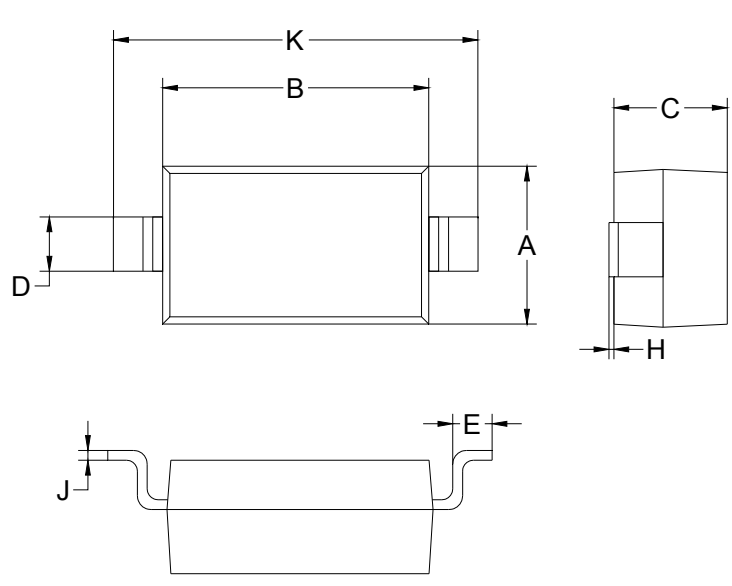


Fig. 6 Forward voltages vs. forward currents chart with multiple temperature curves (example shown below)

PACKAGE OUTLINE

Plastic surface mounted package

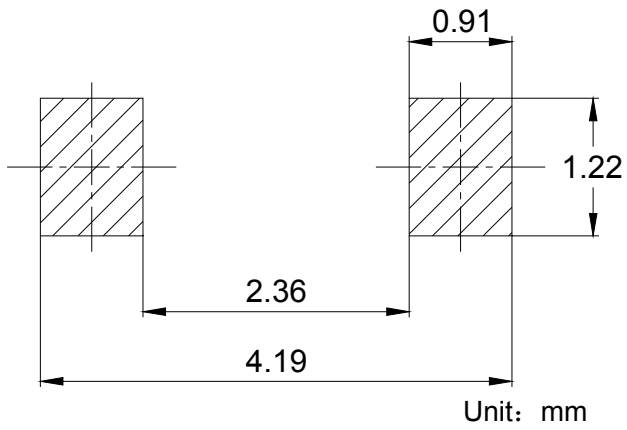
SOD-123



SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85
All Dimensions in mm		

Surface mount zener diode **TMMSZ5221BG-TMMSZ5267BG**

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
TMMSZ5221BG-TMMSZ5267BG	SOD-123	3000/Tape&Reel