Elektronische Bauelemente

MMSZ52xxB Series

500mW, SOD-123 Series
Surface Mount Zener Diodes

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

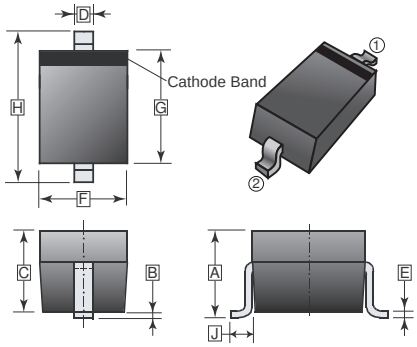
FEATURES

- Planar die construction
- 500Mw power dissipation
- General purpose and medium current
- Ideally suited for automated assembly processes

APPLICATIONS

- Zener diode
- Ultra small surface mount package

SOD-123



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.94	1.35	F	1.40	1.80
B	0.10 REF.		G	2.54	2.85
C	1.00	1.30	H	3.55	3.86
D	0.30	0.78	J	0.50 REF.	
E	0.08	0.25			

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123	3K	7 inch

ABSOLUTE MAXIMUM RATINGS (T_A=25℃ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Forward Voltage@ I_F=10mA	V_F	0.9	V
Power Dissipation	P_D	500	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	350	℃ / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	150, -65~150	℃

Notes:
1. The device is mounted on a ceramic PCB: 7.6mm x 9.4mm x 0.87mm with 25 mm^2 pad areas.
2. Tested with pulses: Tp≦1ms.

ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise specified)

Part Number	Marking Code	Zener Voltage				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	V_R
		Nom	Min	Max					
		V	V	V	mA	Ω		μA	V
MMSZ5223B	C3	2.7	2.57	2.84	20	30	1300	75	1
MMSZ5225B	C5	3	2.85	3.15	20	30	1600	50	1
MMSZ5226B	G1	3.3	3.14	3.47	20	28	1600	25	1
MMSZ5227B	G2	3.6	3.42	3.78	20	24	1700	15	1
MMSZ5228B	G3	3.9	3.71	4.1	20	23	1900	10	1
MMSZ5229B	G4	4.3	4.09	4.52	20	22	2000	5	1
MMSZ5230B	G5	4.7	4.47	4.94	20	19	1900	5	2
MMSZ5231B	E1	5.1	4.85	5.36	20	17	1600	5	2
MMSZ5232B	E2	5.6	5.32	5.88	20	11	1600	5	3
MMSZ5233B	E3	6	5.7	6.3	20	7	1600	5	3.5
MMSZ5234B	E4	6.2	5.89	6.51	20	7	1000	3	4
MMSZ5235B	E5	6.8	6.46	7.14	20	5	750	3	5
MMSZ5236B	F1	7.5	7.13	7.88	20	6	500	3	6
MMSZ5237B	F2	8.2	7.79	8.61	20	8	500	3	6.5
MMSZ5238B	F3	8.7	8.27	9.14	20	8	600	3	6.5
MMSZ5239B	F4	9.1	8.65	9.56	20	10	600	3	7
MMSZ5240B	F5	10	9.5	10.5	20	17	600	2	8
MMSZ5241B	H1	11	10.45	11.55	20	22	600	1	8.4
MMSZ5242B	H2	12	11.4	12.6	20	30	600	0.5	9.1
MMSZ5243B	H3	13	12.35	13.65	9.5	13	600	0.1	9.9
MMSZ5244B	H4	14	13.3	14.7	9	15	600	0.1	10
MMSZ5245B	H5	15	14.25	15.75	8.5	16	600	0.1	11
MMSZ5246B	J1	16	15.2	16.8	7.8	17	600	0.1	12
MMSZ5248B	J3	18	17.1	18.9	7	21	600	0.1	14
MMSZ5250B	J5	20	19	21	6.2	25	600	0.1	15
MMSZ5251B	K1	22	20.9	23.1	5.6	29	600	0.1	17
MMSZ5252B	K2	24	22.8	25.2	5.2	33	600	0.1	18
MMSZ5253B	K3	25	23.75	26.25	5	35	600	0.1	19
MMSZ5254B	K4	27	25.65	28.35	5	41	600	0.1	21
MMSZ5255B	K5	28	26.6	29.4	4.5	44	600	0.1	21
MMSZ5256B	M1	30	28.5	31.5	4.2	49	600	0.1	23
MMSZ5257B	M2	33	31.35	34.65	3.8	58	700	0.1	25
MMSZ5258B	M3	36	34.2	37.8	3.4	70	700	0.1	27
MMSZ5259B	M4	39	37.05	40.95	3.2	80	800	0.1	30
MMSZ5260B	M5	43	40.85	45.15	3	93	900	0.1	33
MMSZ5261B	N1	47	44.65	49.35	2.7	105	1000	0.1	36
MMSZ5265B	N5	62	58.9	65.1	2	185	1400	0.1	47
MMSZ5267B	P2	75	71.25	78.75	1.7	270	1700	0.1	56

CHARACTERISTIC CURVES

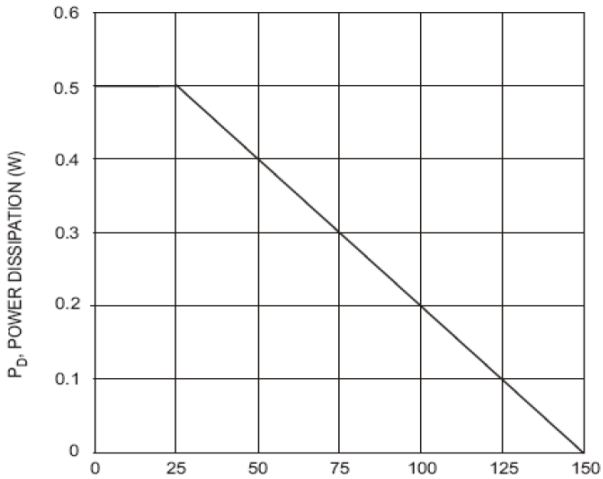


Fig. 1 Power Dissipation vs Ambient Temperature

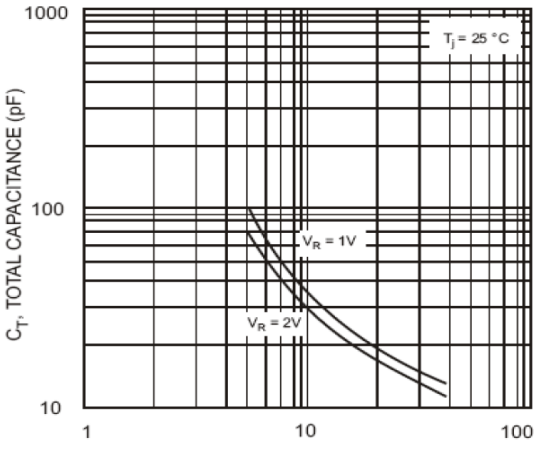


Fig. 2 Total Capacitance vs Nominal Zener Voltage

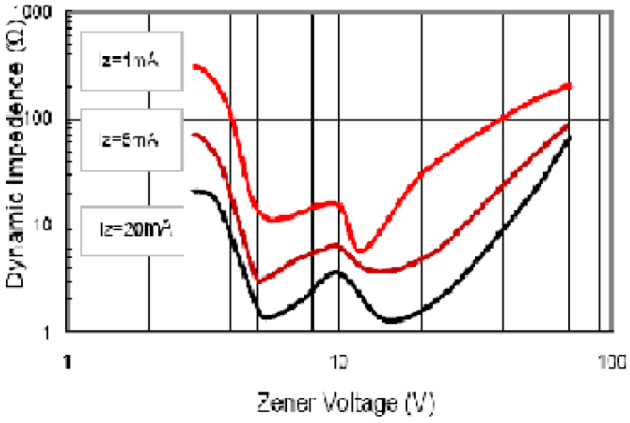


Fig.3 Effect of Zener Voltage on Impedence

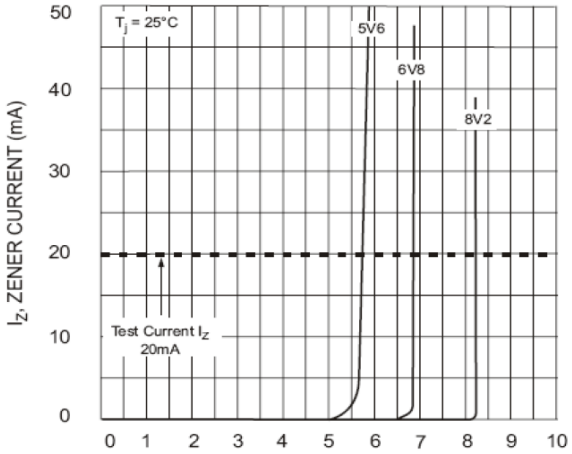


Fig. 4 Zener Breakdown Characteristics

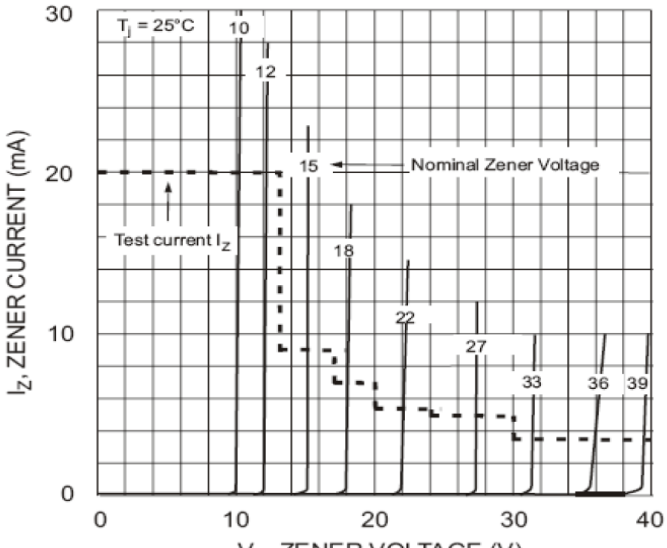


Fig. 5 Zener Breakdown Characteristics