

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURES

- Large Selection of Zener Voltage: 2.4V~75V
- Tight Voltage Tolerance: $\pm 5\%$
- Ultra low Profile Package Well Suited for Automated Assembly
- MSL Class 1 Compatible
- Qualified to AEC-Q101 Standards for High Reliability

MECHANICAL DATA

- Case: SOD-123
- Molding Compound: UL Flammability Rating 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band

APPLICATIONS

- General Voltage Regulating
- Mobile & Handheld Systems

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123	3K	7 inch

ORDER INFORMATION

Part Number	Type
MMSZ52xxBCR-C	Lead (Pb)-free and Halogen-free

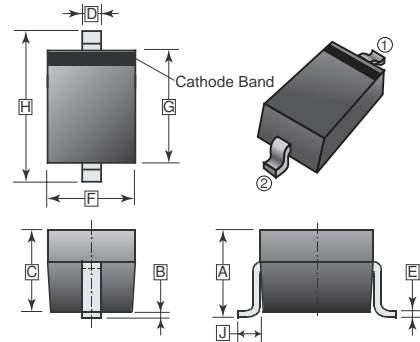
ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

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	R _{θJA}	250	°C / W
Thermal Resistance from Junction to Case	R _{θJC}	140	
Operating Junction and Storage Temperature Range	T _J , T _{STG}	150, -65~150	°C

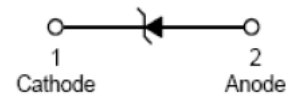
Note:

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

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			



ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Part Number	Marking Code	Zener Voltage				Maximum Zener Impedance		Maximum Reverse Leakage Current	
		$V_Z @ I_{ZT}$			I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}=0.25\text{mA}$	I_R	V_R
		Min.	Nom.	Max.					
		V			mA	Ω		μA	V
MMSZ5221BCR-C	C1	2.28	2.4	2.52	20	30	1200	100	1
MMSZ5223BCR-C	C3	2.57	2.7	2.84	20	30	1300	75	1
MMSZ5225BCR-C	C5	2.85	3	3.15	20	30	1600	50	1
MMSZ5226BCR-C	G1	3.14	3.3	3.47	20	28	1600	25	1
MMSZ5227BCR-C	G2	3.42	3.6	3.78	20	24	1700	15	1
MMSZ5228BCR-C	G3	3.71	3.9	4.1	20	23	1900	10	1
MMSZ5229BCR-C	G4	4.09	4.3	4.52	20	22	2000	5	1
MMSZ5230BCR-C	G5	4.47	4.7	4.94	20	19	1900	5	2
MMSZ5231BCR-C	E1	4.85	5.1	5.36	20	17	1600	5	2
MMSZ5232BCR-C	E2	5.32	5.6	5.88	20	11	1600	5	3
MMSZ5233BCR-C	E3	5.7	6	6.3	20	7	1600	5	3.5
MMSZ5234BCR-C	E4	5.89	6.2	6.51	20	7	1000	5	4
MMSZ5235BCR-C	E5	6.46	6.8	7.14	20	5	750	3	5
MMSZ5236BCR-C	F1	7.13	7.5	7.88	20	6	500	3	6
MMSZ5237BCR-C	F2	7.79	8.2	8.61	20	8	500	3	6.5
MMSZ5238BCR-C	F3	8.27	8.7	9.14	20	8	600	3	6.5
MMSZ5239BCR-C	F4	8.65	9.1	9.56	20	10	600	3	7
MMSZ5240BCR-C	F5	9.5	10	10.5	20	17	600	3	8
MMSZ5241BCR-C	H1	10.45	11	11.55	20	22	600	2	8.4
MMSZ5242BCR-C	H2	11.4	12	12.6	20	30	600	1	9.1
MMSZ5243BCR-C	H3	12.35	13	13.65	9.5	13	600	0.5	9.9
MMSZ5244BCR-C	H4	13.3	14	14.7	9	15	600	0.1	10
MMSZ5245BCR-C	H5	14.25	15	15.75	8.5	16	600	0.1	11
MMSZ5246BCR-C	J1	15.2	16	16.8	7.8	17	600	0.1	12
MMSZ5247BCR-C	J2	16.15	17	17.85	7.5	19	600	0.1	13
MMSZ5248BCR-C	J3	17.1	18	18.9	7	21	600	0.1	14
MMSZ5250BCR-C	J5	19	20	21	6.2	25	600	0.1	15
MMSZ5251BCR-C	K1	20.9	22	23.1	5.6	29	600	0.1	17
MMSZ5252BCR-C	K2	22.8	24	25.2	5.2	33	600	0.1	18
MMSZ5253BCR-C	K3	23.75	25	26.25	5	35	600	0.1	19
MMSZ5254BCR-C	K4	25.65	27	28.35	5	41	600	0.1	21
MMSZ5255BCR-C	K5	26.6	28	29.4	4.5	44	600	0.1	21
MMSZ5256BCR-C	M1	28.5	30	31.5	4.2	49	600	0.1	23
MMSZ5257BCR-C	M2	31.35	33	34.65	3.8	58	700	0.1	25
MMSZ5258BCR-C	M3	34.2	36	37.8	3.4	70	700	0.1	27
MMSZ5259BCR-C	M4	37.05	39	40.95	3.2	80	800	0.1	30
MMSZ5260BCR-C	M5	40.85	43	45.15	3	93	900	0.1	33
MMSZ5261BCR-C	N1	44.65	47	49.35	2.7	105	1000	0.1	36
MMSZ5262BCR-C	N2	48.45	51	53.55	2.5	125	1100	0.1	39
MMSZ5263BCR-C	M8	53.2	56	58.8	2.2	150	1300	0.1	43
MMSZ5265BCR-C	N5	58.9	62	65.1	2	185	1400	0.1	47
MMSZ5267BCR-C	P2	71.25	75	78.75	1.7	270	1700	0.1	56

CHARACTERISTIC CURVES

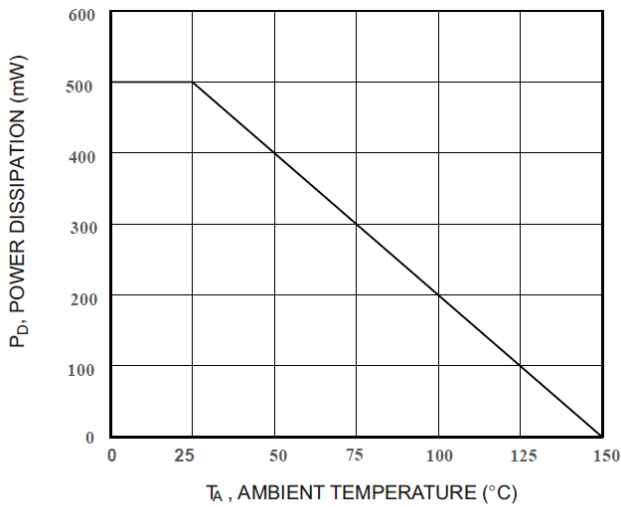


Fig. 1 Power Dissipation vs Ambient Temperature

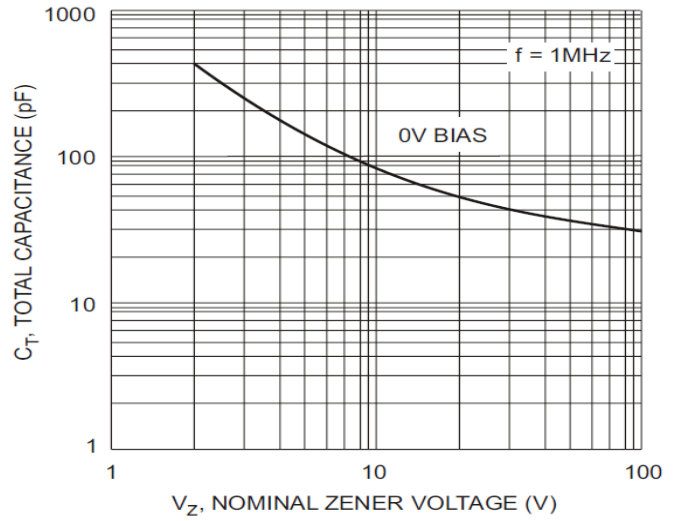


Fig. 2 Typical Capacitance

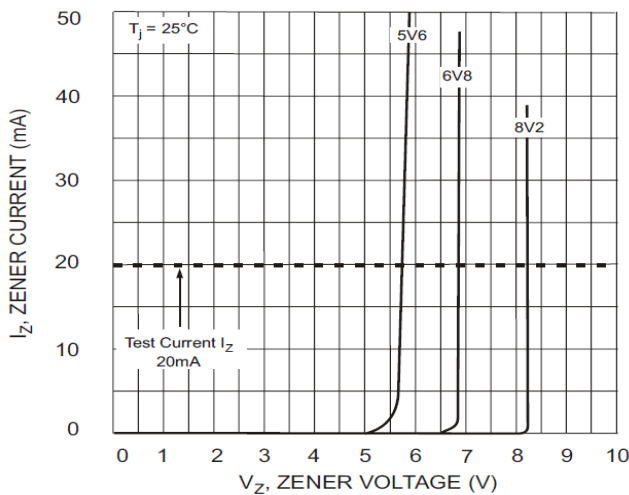


Fig. 3 Zener Breakdown Characteristics

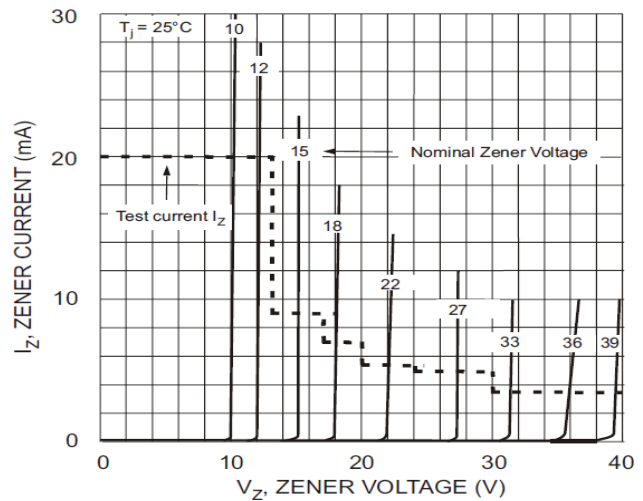


Fig. 4 Zener Breakdown Characteristics