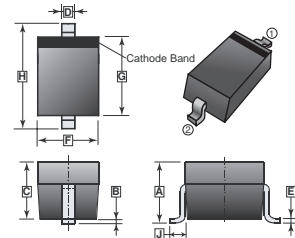


RoHS Compliant Product
 A suffix of "-C" specifies halogen & lead-free

SOD-323

FEATURES

- Planar Die Construction
- General Purpose Dissipation
- Ideally Suited for Automated Assembly Process



PACKAGING INFORMATION

- Case: SOD-323, Plastic
- Case Material – UL Flammability Rating Classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-020, Method 208
- Polarity: Cathode Band
- Weight: 0.005 grams(approx.)

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.05 REF.		E	0.080	0.180
B	0.20 REF.		F	1.15	1.45
C	0.80	1.00	G	1.60	1.80
D	0.25	0.40	H	2.30	2.70

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

PARAMETER	SYMBOL	VALUE	UNIT
Forward Voltage @ $I_F=10\text{mA}$ ¹	V_F	1.0	V
Power Dissipation ²	P_D	200	mW
Thermal Resistance Junction to Ambient Air ²	$R_{\theta JA}$	650	$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 ~ 150	$^\circ\text{C}$

Note: 1. Short duration test pulse used in minimizing self-heating effect.
 2. Device mount on ceramic PCB; 7.6 mm x 9.4 mm x 0.87 mm with pad areas 25 mm²

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

TYPE NUMBER	MARKING	ZENER VOLTAGE RANGE ¹				MAXIMUM ZENER IMPEDANCE ³		MAXIMUM REVERSE LEAKAGE CURRENT ¹	
		$V_Z @ I_{ZT}$			I_{ZT}	$Z_{ZT} @ I_{ZT}$	$V_{ZK} @ I_{ZK}$ =0.25mA	$I_R @ V_R$	
		Min(V)	Nom(V)	Max(V)	mA	Ω		μA	V
MMSZ5221BS	C1	2.28	2.4	2.52	20	30	1200	100	1.0
MMSZ5222BS	C2	2.38	2.5	2.63	20	30	1250	100	1.0
MMSZ5223BS	C3	2.57	2.7	2.84	20	30	1300	75	1.0
MMSZ5225BS	C5	2.85	3.0	3.15	20	30	1600	50	1.0
MMSZ5226BS	D1\G1	3.14	3.3	3.47	20	28	1600	25	1.0
MMSZ5227BS	D2\G2	3.42	3.6	3.78	20	24	1700	15	1.0
MMSZ5228BS	D3\G3	3.71	3.9	4.1	20	23	1900	10	1.0
MMSZ5229BS	D4\G4	4.09	4.3	4.52	20	22	2000	5.0	1.0
MMSZ5230BS	D5\G5	4.47	4.7	4.94	20	19	1900	5.0	2.0
MMSZ5231BS	E1	4.85	5.1	5.36	20	17	1600	5.0	2.0
MMSZ5232BS	E2	5.32	5.6	5.88	20	11	1600	5.0	3.0
MMSZ5233BS	E3	5.7	6.0	6.3	20	7	1600	5.0	3.5
MMSZ5234BS	E4	5.89	6.2	6.51	20	7	1000	5.0	4.0
MMSZ5235BS	E5	6.46	6.8	7.14	20	5	750	3.0	5.0
MMSZ5236BS	F1	7.13	7.5	7.88	20	6	500	3.0	6.0
MMSZ5237BS	F2	7.79	8.2	8.61	20	8	500	3.0	6.5
MMSZ5238BS	F3	8.27	8.7	9.14	20	8	600	3.0	6.5
MMSZ5239BS	F4	8.65	9.1	9.56	20	10	600	3.0	7.0
MMSZ5240BS	F5	9.5	10	10.50	20	17	600	3.0	8.0
MMSZ5241BS	H1	10.45	11	11.55	20	22	600	2.0	8.4
MMSZ5242BS	H2	11.4	12	12.6	20	30	600	1.0	9.1
MMSZ5243BS	H3	12.35	13	13.65	9.5	13	600	0.5	9.9
MMSZ5245BS	H5	14.25	15	15.75	8.5	16	600	0.1	11
MMSZ5246BS	J1	15.2	16	16.8	7.8	17	600	0.1	12
MMSZ5248BS	J3	17.1	18	18.9	7.0	21	600	0.1	14
MMSZ5250BS	J5	19	20	21	6.2	25	600	0.1	15
MMSZ5251BS	K1	20.9	22	23.1	5.6	29	600	0.1	17
MMSZ5252BS	K2	22.8	24	25.2	5.2	33	600	0.1	18
MMSZ5254BS	K4	25.65	27	28.35	5.0	41	600	0.1	21
MMSZ5255BS	K5	26.6	28	29.4	4.5	44	600	0.1	21
MMSZ5256BS	M1	28.5	30	31.5	4.2	49	600	0.1	23
MMSZ5257BS	M2	31.35	33	34.65	3.8	58	700	0.1	25
MMSZ5258BS	M3	34.2	36	37.8	3.4	70	700	0.1	27
MMSZ5259BS	M4	37.05	39	40.95	3.2	80	800	0.1	30

Notes: 1. Short duration test pulse used to minimize self-heating effect.

2. Device mount on ceramic PCB; 7.6 mm x 9.4 mm x 0.87 mm with pad areas 25 mm²

3. f = 1KHz

CHARACTERISTIC CURVES

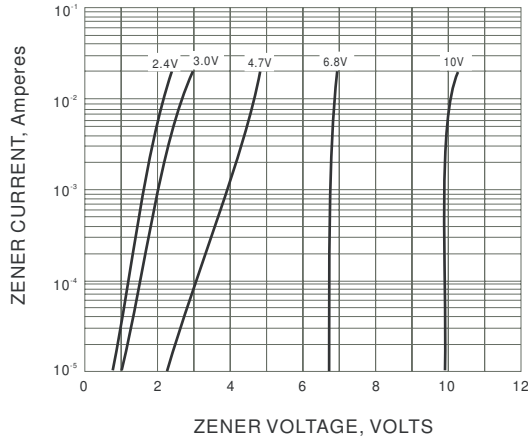


Fig.1 ZENER VOLTAGE VERSUS ZENER CURRENT

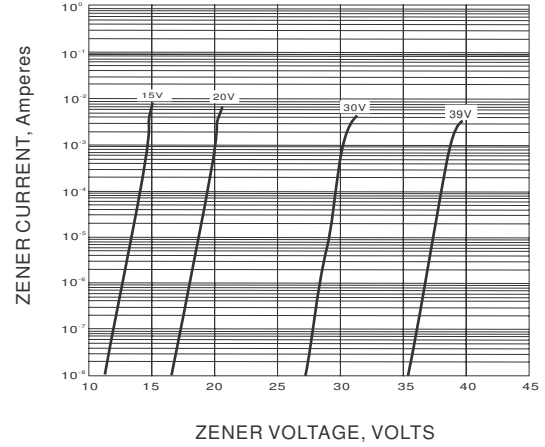


Fig.2 ZENER VOLTAGE VERSUS ZENER CURRENT

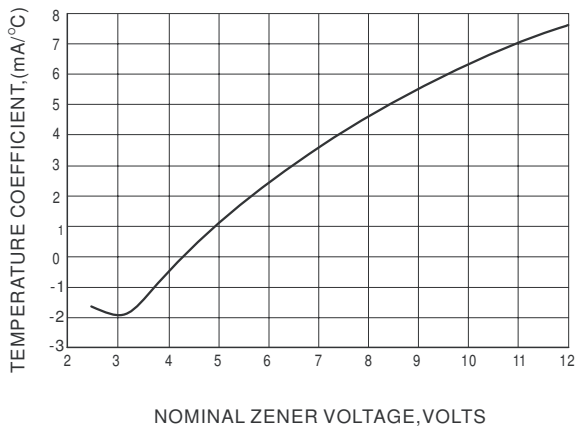


Fig.3 TEMPERATURE COEFFICIENTS

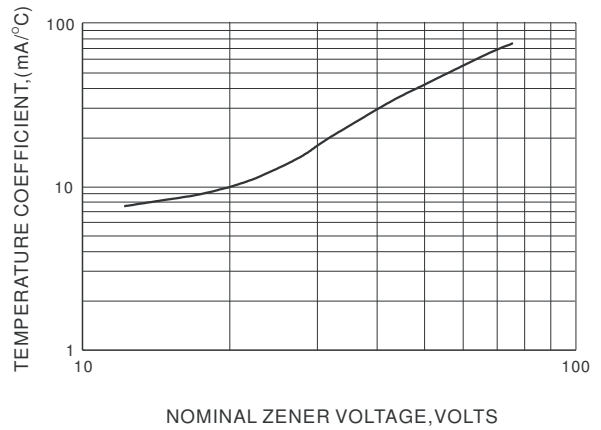


Fig.4 TEMPERATURE COEFFICIENTS

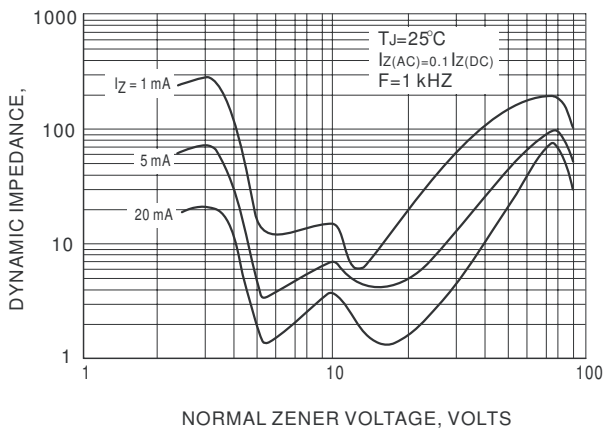


Fig.5 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

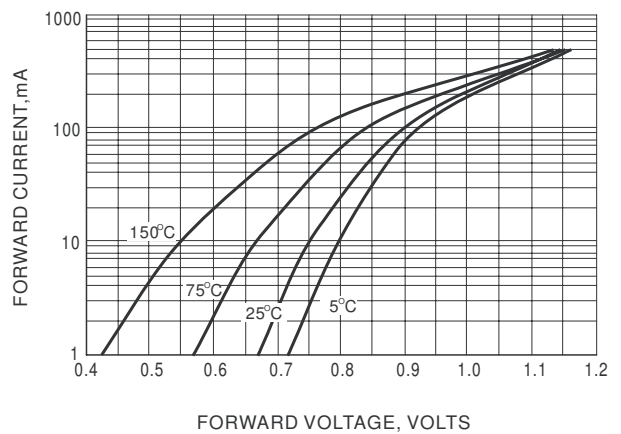


Fig.6 TYPICAL FORWARD VOLTAGE

CHARACTERISTIC CURVES

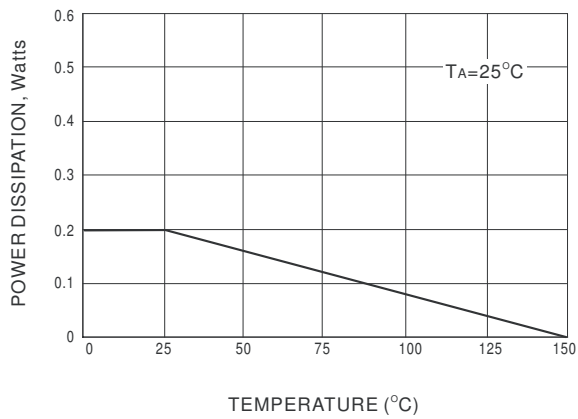


Fig.7 STEADY STATE POWER DERATING

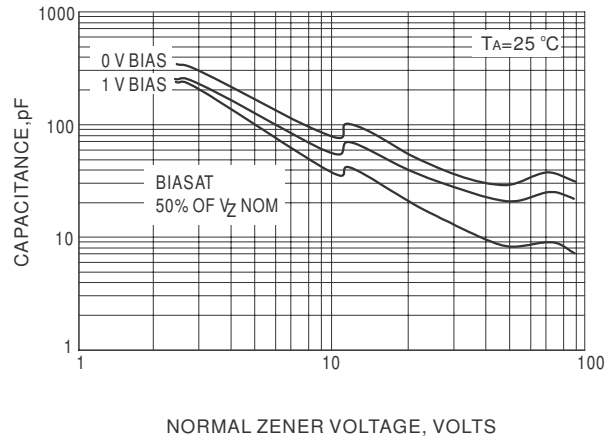


Fig.7 TYPICAL CAPACITANCE