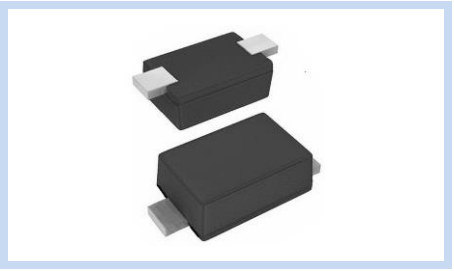
Zener Diodes
SOD-323F

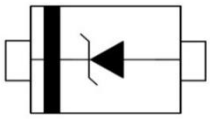
MM3Z-B Series

MERITEK

FEATURE



- Zener Voltage Range: 2.4V to 75V
- Zener Voltage Tolerance: ±2%
- Power Dissipation: 200mW
- Clip Bonding Construction
- Good Thermal Capability
- Application: Power Management Systems, Voltage Regulation



RoHS

MECHANICAL DATA

- Case: SOD-323F, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026

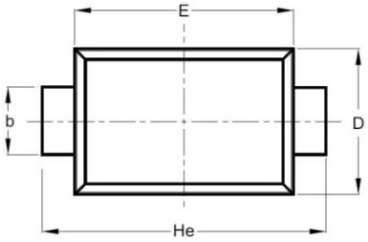
ABSOLUTE MAXIMUM RATINGS

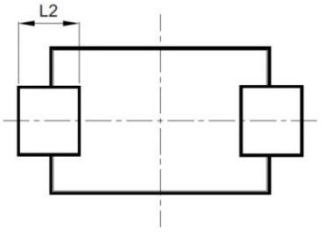
Parameter	Symbols	Value	Unit
Power Dissipation	P_D	200	mW
Forward Voltage at I_F=10mA	V_F	1.0	V
Resistance Junction to Ambient	RθJA	750	ºC/W
Junction Temperature Range	T_J	-65~+150	˚C
Storage Temperature Range	T_{STG}	-65~+150	˚C

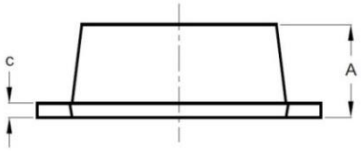
Note: T_A=25°C unless otherwise noted

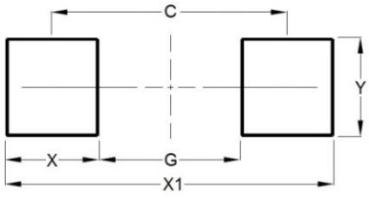
DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.70	0.90
b	0.25	0.35
c	0.05	0.15
D	1.15	1.35
E	1.75	1.95
He	2.30	2.70
L2	0.30	-
C	2.17	2.17
G	1.44	1.44
X	0.73	0.73
X1	2.90	2.90
Y	0.50	0.50









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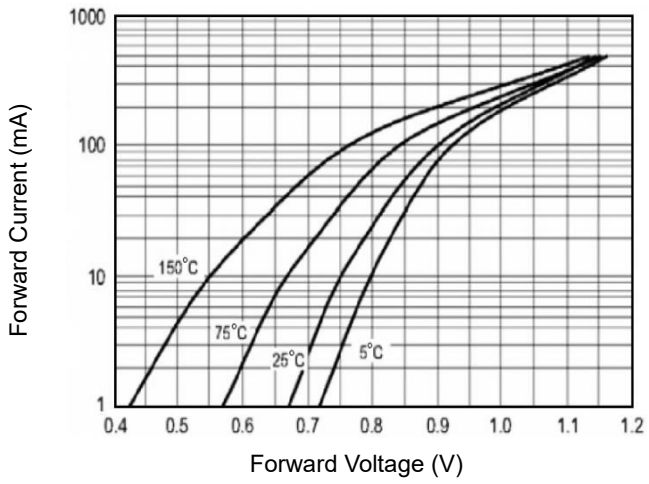
ELECTRICAL CHARACTERISTICS

Part Number	Nominal Zener Voltage V_Z at I_{ZT}=5mA			Max Zener Impedance			Max Reverse Leakage Current	
	Nom	Min	Max	Z_{ZT} at I_{ZT}	Z_{ZK} at I_{ZK}	I_{ZK}	I_R at V_R	
	(V)	(V)	(V)	(Ω)	(Ω)	(mA)	(μA)	(V)
MM3Z2V4B	2.4	2.35	2.45	100	564	1.0	45	1.0
MM3Z2V7B	2.7	2.65	2.75	100	564	1.0	18	1.0
MM3Z3V0B	3.0	2.94	3.06	100	564	1.0	9.0	1.0
MM3Z3V3B	3.3	3.23	3.37	95	564	1.0	4.5	1.0
MM3Z3V6B	3.6	3.53	3.67	90	564	1.0	4.5	1.0
MM3Z3V9B	3.9	3.82	3.98	90	564	1.0	2.7	1.0
MM3Z4V3B	4.3	4.21	4.39	90	564	1.0	2.7	1.0
MM3Z4V7B	4.7	4.61	4.79	80	470	1.0	2.7	2.0
MM3Z5V1B	5.1	5.00	5.20	60	451	1.0	1.8	2.0
MM3Z5V6B	5.6	5.49	5.71	40	376	1.0	0.9	2.0
MM3Z6V2B	6.2	6.08	6.32	10	141	1.0	2.7	4.0
MM3Z6V8B	6.8	6.66	6.94	15	75	1.0	1.8	4.0
MM3Z7V5B	7.5	7.35	7.65	15	75	1.0	0.90	5.0
MM3Z8V2B	8.2	8.04	8.36	15	75	1.0	0.63	5.0
MM3Z9V1B	9.1	8.92	9.28	15	94	1.0	0.45	6.0
MM3Z10VB	10	9.80	10.20	20	141	1.0	0.18	7.0
MM3Z11VB	11	10.78	11.22	20	141	1.0	0.09	8.0
MM3Z12VB	12	11.76	12.24	25	141	1.0	0.09	8.0
MM3Z13VB	13	12.74	13.26	30	160	1.0	0.09	8.0
MM3Z15VB	15	14.70	15.30	30	188	1.0	0.045	10.5
MM3Z16VB	16	15.68	16.32	40	188	1.0	0.045	11.2
MM3Z18VB	18	17.64	18.36	45	212	1.0	0.045	12.6
MM3Z20VB	20	19.60	20.40	55	212	1.0	0.045	14.0
MM3Z22VB	22	21.56	22.44	55	235	1.0	0.045	15.4
MM3Z24VB	24	23.52	24.48	70	235	1.0	0.045	16.8
MM3Z27VB	27	26.46	27.54	80	282	0.5	0.045	18.9
MM3Z30VB	30	29.40	30.60	80	282	0.5	0.045	21.0
MM3Z33VB	33	32.34	33.66	80	306	0.5	0.045	23.0
MM3Z36VB	36	35.28	36.72	90	329	0.5	0.045	25.2
MM3Z39VB	39	38.22	39.78	130	329	0.5	0.045	27.3
MM3Z43VB	43	42.14	43.86	150	353	0.5	0.045	30.1
MM3Z47VB	47	46.06	47.94	170	353	0.5	0.045	33.0
MM3Z51VB	51	49.98	52.02	180	376	0.5	0.045	35.7
MM3Z56VB	56	54.88	57.12	200	400	0.5	0.045	39.2
MM3Z62VB	62	60.76	63.24	215	423	0.5	0.045	43.4
MM3Z68VB	68	66.64	69.36	240	447	0.5	0.045	47.6
MM3Z75VB	75	73.50	76.50	255	470	0.5	0.045	52.5

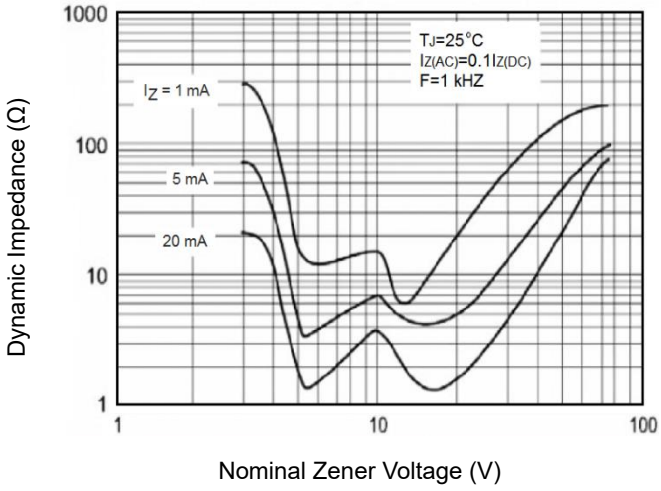
Note:
1. T_A =25°C unless otherwise noted
2. The Zener Voltage (V_Z) is tested under pulse condition of 10ms.
3. The device numbers listed have a standard tolerance on the Nominal Zener Voltage of ±2%.
4. The Zener Impedance is derived from 60Hz AC voltage, which results when an AC current having an rms value equal to 10% of the DC Zener Current (IZT or IZK) is superimposed to IZT or IZK.

CHARACTERISTIC CURVES

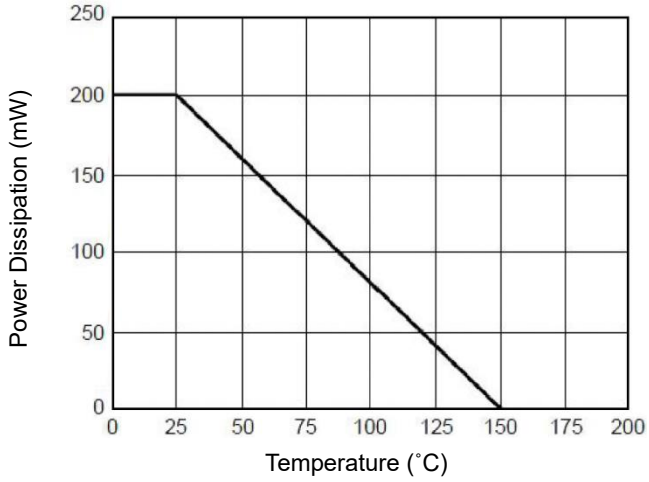
Typical Forward Voltage



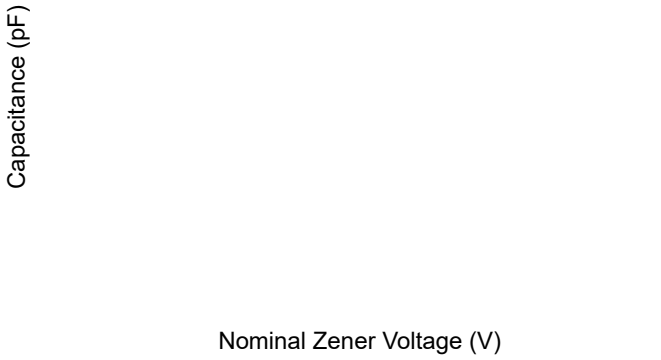
Effect of Zener Voltage on Zener Impedance



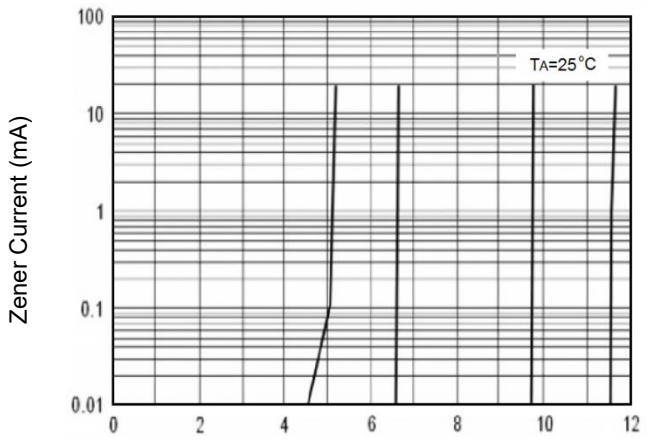
Power Derating



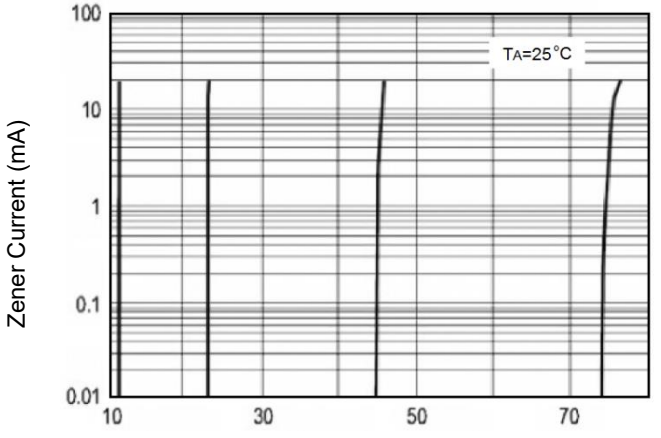
Typical Capacitance



Zener Breakdown Characteristics

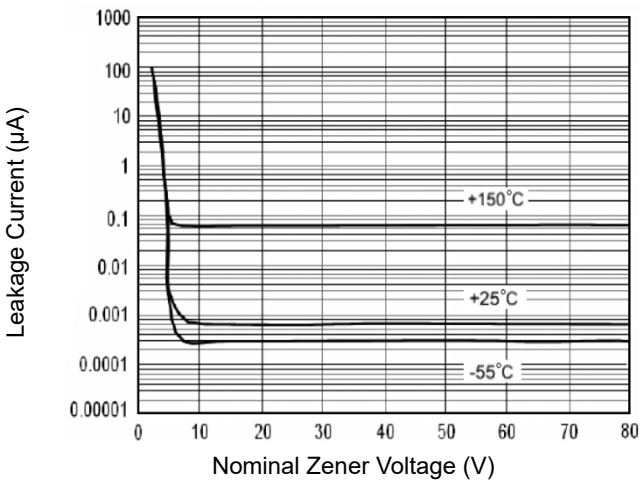


Zener Breakdown Characteristics



CHARACTERISTIC CURVES

Typical Leakage Current



*Specifications subject to change without notice.