Zener Diodes
500mW SOD-123

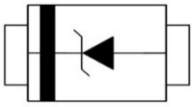
MMSZ52-B Series

MERITEK

FEATURE

- Zener Voltage Range: 2.4~75V
- Power Dissipation: 500mW
- Planar Die Construction
- Ideally Suited for Automated Assembly Processes
- Application: Power Management Systems, Voltage Regulation

MECHANICAL DATA



RoHS

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Band Marking Denotes Cathode End

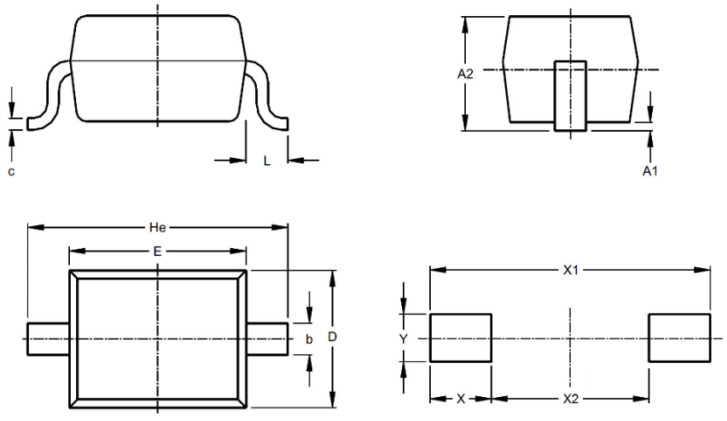
MAXIMUM RATINGS

Parameter	Symbols	Value	Unit
Power Dissipation (Note 2)	P_D	500	mW
Typical Thermal Resistance (Note 2)	ReJA	430	˚C/W
Typical Thermal Resistance (Note 3)	ReJA	325	˚C/W
Operating Junction and Storage Temperature	T_J, T_{STG}	-55~+150	˚C

Note:
1. TA=25˚C unless otherwise noted.
2. Mounted on a FR-4 PCB, single-sided copper, with 100cm2 copper pad area.
3. Mounted on a FR-4 PCB, single-sided copper, mini pad.

DIMENSIONS

SOD-123	Min (mm)	Max (mm)
A1	-	0.12
A2	0.95	1.35
b	0.50	0.70
C	-	0.20
D	1.40	1.80
E	2.50	2.80
He	3.60	3.90
L	0.40	-
X	0.97	
X1	4.25	
X2	2.31	
Y	1.22	



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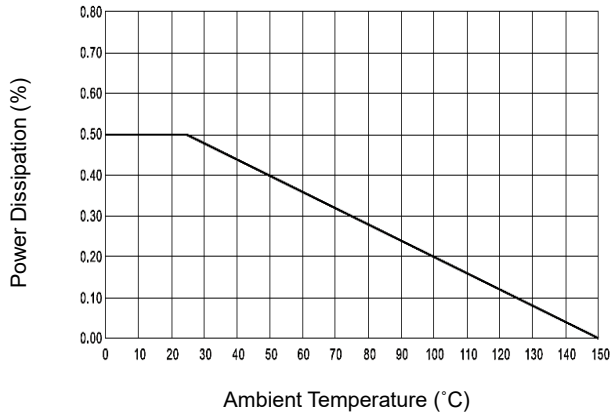
ELECTRICAL CHARACTERISTICS

Part Number	Nominal Zener Voltage V_Z at I_{ZT}			Max Zener Impedance				Max Reverse Leakage Current	
	Nom (V)	Min (V)	Max (V)	Z_{ZT} (Ω)	I_{ZT} (mA)	Z_{ZK} (Ω)	I_{ZK} (mA)	I_R (μA)	V_R (V)
MMSZ5221B	2.4	2.28	2.52	30	20.0	1200	0.25	100	1
MMSZ5222B	2.5	2.38	2.63	30	20.0	1250	0.25	100	1
MMSZ5223B	2.7	2.57	2.84	30	20.0	1300	0.25	75	1
MMSZ5224B	2.8	2.66	2.94	30	20.0	1400	0.25	75	1
MMSZ5225B	3.0	2.85	3.15	30	20.0	1600	0.25	50	1
MMSZ5226B	3.3	3.14	3.47	28	20.0	1600	0.25	25	1
MMSZ5227B	3.6	3.42	3.78	24	20.0	1700	0.25	15	1
MMSZ5228B	3.9	3.71	4.10	23	20.0	1900	0.25	10	1
MMSZ5229B	4.3	4.09	4.52	22	20.0	2000	0.25	5	1
MMSZ5230B	4.7	4.47	4.94	19	20.0	1900	0.25	5	2
MMSZ5231B	5.1	4.85	5.36	17	20.0	1600	0.25	5	2
MMSZ5232B	5.6	5.32	5.88	11	20.0	1600	0.25	5	3
MMSZ5233B	6.0	5.70	6.30	7	20.0	1600	0.25	5	3.5
MMSZ5234B	6.2	5.89	6.51	7	20.0	1000	0.25	5	4.0
MMSZ5235B	6.8	6.46	7.14	5	20.0	750	0.25	3	5.0
MMSZ5236B	7.5	7.13	7.88	6	20.0	500	0.25	3	6.0
MMSZ5237B	8.2	7.79	8.61	8	20.0	500	0.25	3	6.0
MMSZ5238B	8.7	8.27	9.14	8	20.0	600	0.25	3	6.5
MMSZ5239B	9.1	8.65	9.56	10	20.0	600	0.25	3	6.5
MMSZ5240B	10	9.50	10.50	17	20.0	600	0.25	3	8.0
MMSZ5241B	11	10.45	11.55	22	20.0	600	0.25	2	8.4
MMSZ5242B	12	11.40	12.60	30	20.0	600	0.25	1	9.1
MMSZ5243B	13	12.35	13.65	13	9.5	600	0.25	0.5	9.9
MMSZ5244B	14	13.30	14.70	15	9.0	600	0.25	0.1	10.5
MMSZ5245B	15	14.25	15.75	16	8.5	600	0.25	0.1	11
MMSZ5246B	16	15.20	16.80	17	7.8	600	0.25	0.1	12
MMSZ5247B	17	16.15	17.85	19	7.5	600	0.25	0.1	13
MMSZ5248B	18	17.10	18.90	21	7.0	600	0.25	0.1	14
MMSZ5249B	19	18.05	19.95	23	6.6	600	0.25	0.1	14
MMSZ5250B	20	19.00	21.00	25	6.2	600	0.25	0.1	15
MMSZ5251B	22	20.90	23.10	29	5.6	600	0.25	0.1	17
MMSZ5252B	24	22.80	25.20	33	5.2	600	0.25	0.1	18
MMSZ5253B	25	23.75	26.25	35	5.0	600	0.25	0.1	19
MMSZ5254B	27	25.65	28.35	41	5.0	600	0.25	0.1	21
MMSZ5255B	28	26.60	29.40	44	4.5	600	0.25	0.1	21
MMSZ5256B	30	28.50	31.50	49	4.2	600	0.25	0.1	23
MMSZ5257B	33	31.35	34.65	58	3.8	700	0.25	0.1	25
MMSZ5258B	36	34.20	37.80	70	3.4	700	0.25	0.1	27
MMSZ5259B	39	37.05	40.95	80	3.2	800	0.25	0.1	30
MMSZ5260B	43	40.85	45.15	93	3.0	900	0.25	0.1	33
MMSZ5261B	47	44.65	49.35	105	2.7	1000	0.25	0.1	36
MMSZ5262B	51	48.45	53.55	125	2.5	1100	0.25	0.1	39
MMSZ5263B	56	53.20	58.80	150	2.2	1300	0.25	0.1	43
MMSZ5264B	60	57.00	63.00	170	2.1	1400	0.25	0.1	46
MMSZ5265B	62	58.90	65.10	185	2.0	1500	0.25	0.1	47
MMSZ5266B	68	64.60	71.40	230	1.8	1600	0.25	0.1	52
MMSZ5267B	75	71.25	78.75	270	1.7	1400	0.25	0.1	56

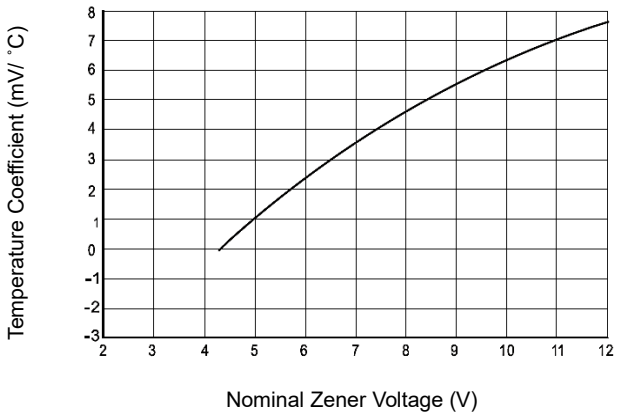
Notes: TA=25°C unless otherwise noted

CHARACTERISTIC CURVES

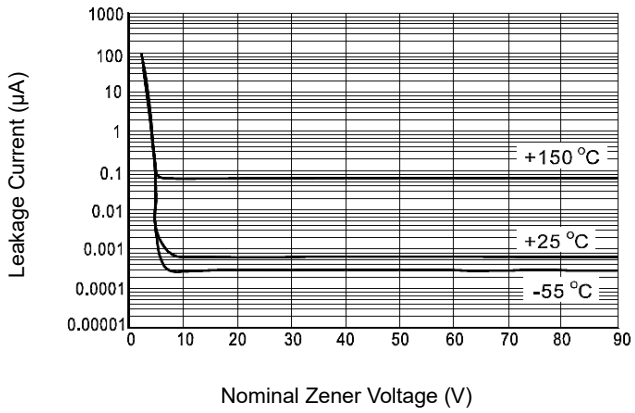
Power Derating



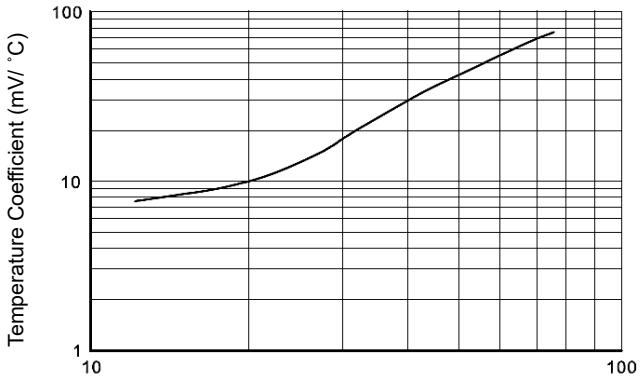
Temperature Coefficient



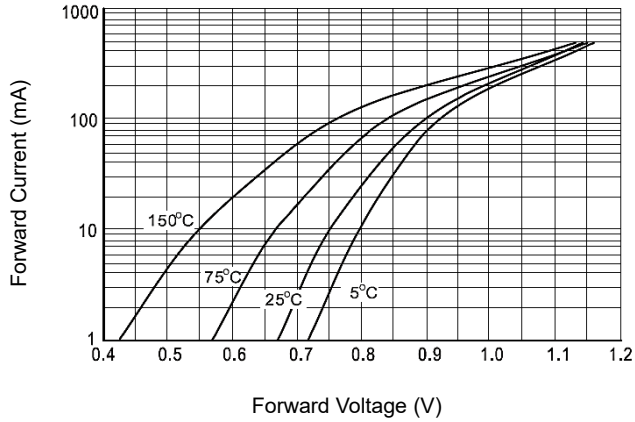
Typical Leakage Current



Temperature Coefficient



Typical Forward Voltage



*Specifications subject to change without notice.