

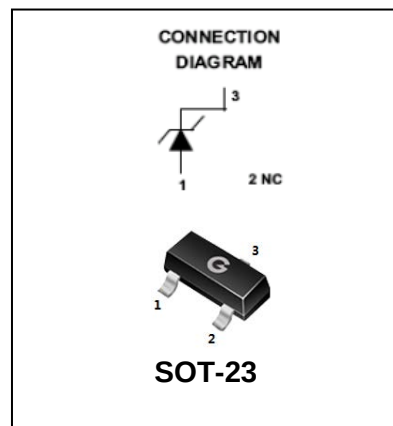
SMT-Type Zener Diode

TMMBZ5221B-TMMBZ5267B

FEATURES

- Large selection of zener voltages: 2.4V ~ 75V
- Tight voltage tolerance: $\pm 5\%$ for B-series
- Ultra low-profile package well suited for automated assembly
- MSL Class 1 compatible
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards

HF



Mechanical Data

- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

APPLICATIONS

- General voltage regulation
- Mobile & handheld systems

ORDERING INFORMATION

Part Number	Marking	Package
TMMBZ5221B – TMMBZ5267B	See Electrical Characteristics	SOT-23

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

Parameter	Symbol	Value	Unit
Forward Voltage @ $I_F=10\text{mA}$	V_F	0.9	V
Power Dissipation	P_D	350	mW
Thermal Resistance (Junction-to-Ambient)	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Thermal Resistance (Junction-to-Case)	$R_{\theta JC}$	295	$^\circ\text{C/W}$
Junction Temperature Range	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +150	$^\circ\text{C}$

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

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

Part Number	Marking Code	Zener Voltage V_Z (V)			@ I_{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Current I_R (μA)	@ V_R (V)
		Min.	Typ.	Max.		Z_{ZT} (Ω) @ I_{ZT}	Z_{ZK} (Ω)	@ I_{ZK} (mA)		
TMMBZ5221B	KC1	2.28	2.40	2.52	20.0	30	1200	0.25	100.0	1.0
TMMBZ5222B	KC2	2.38	2.50	2.63	20.0	30	1250	0.25	100.0	1.0
TMMBZ5223B	KC3	2.57	2.70	2.84	20.0	30	1300	0.25	75.0	1.0
TMMBZ5225B	KC5	2.85	3.00	3.15	20.0	30	1600	0.25	50.0	1.0
TMMBZ5226B	KG1	3.14	3.30	3.47	20.0	28	1600	0.25	25.0	1.0
TMMBZ5227B	KG2	3.42	3.60	3.78	20.0	24	1700	0.25	15.0	1.0
TMMBZ5228B	KG3	3.71	3.90	4.10	20.0	23	1900	0.25	10.0	1.0
TMMBZ5229B	KG4	4.09	4.30	4.52	20.0	22	2000	0.25	5.0	1.0
TMMBZ5230B	KG5	4.47	4.70	4.94	20.0	19	1900	0.25	5.0	2.0
TMMBZ5231B	KE1	4.85	5.10	5.36	20.0	17	1600	0.25	5.0	2.0
TMMBZ5232B	KE2	5.32	5.60	5.88	20.0	11	1600	0.25	5.0	3.0
TMMBZ5233B	KE3	5.70	6.00	6.30	20.0	7	1600	0.25	5.0	3.5
TMMBZ5234B	KE4	5.89	6.20	6.51	20.0	7	1000	0.25	5.0	4.0
TMMBZ5235B	KE5	6.46	6.80	7.14	20.0	5	750	0.25	3.0	5.0
TMMBZ5236B	KF1	7.13	7.50	7.88	20.0	6	500	0.25	3.0	6.0
TMMBZ5237B	KF2	7.79	8.20	8.61	20.0	8	500	0.25	3.0	6.5
TMMBZ5238B	KF3	8.27	8.70	9.14	20.0	8	600	0.25	3.0	6.5
TMMBZ5239B	KF4	8.65	9.10	9.56	20.0	10	600	0.25	3.0	7.0
TMMBZ5240B	KF5	9.50	10.00	10.50	20.0	17	600	0.25	3.0	8.0
TMMBZ5241B	KH1	10.45	11.00	11.55	20.0	22	600	0.25	2.0	8.4
TMMBZ5242B	KH2	11.40	12.00	12.60	20.0	30	600	0.25	1.0	9.1
TMMBZ5243B	KH3	12.35	13.00	13.65	9.5	13	600	0.25	0.5	9.9
TMMBZ5244B	KH4	13.30	14.00	14.70	9.0	15	600	0.25	0.1	10.0
TMMBZ5245B	KH5	14.25	15.00	15.75	8.5	16	600	0.25	0.1	11.0
TMMBZ5246B	KJ1	15.20	16.00	16.80	7.8	17	600	0.25	0.1	12.0
TMMBZ5247B	KJ2	16.15	17.00	17.85	7.5	19	600	0.25	0.1	13.0
TMMBZ5248B	KJ3	17.10	18.00	18.90	7.0	21	600	0.25	0.1	14.0
TMMBZ5250B	KJ5	19.00	20.00	21.00	6.2	25	600	0.25	0.1	15.0
TMMBZ5251B	KK1	20.90	22.00	23.10	5.6	29	600	0.25	0.1	17.0
TMMBZ5252B	KK2	22.80	24.00	25.20	5.2	33	600	0.25	0.1	18.0
TMMBZ5253B	KK3	23.75	25.00	26.25	5.0	35	600	0.25	0.1	19.0
TMMBZ5254B	KK4	25.65	27.00	28.35	5.0	41	600	0.25	0.1	21.0
TMMBZ5255B	KK5	26.60	28.00	29.40	4.5	44	600	0.25	0.1	21.0
TMMBZ5256B	KM1	28.50	30.00	31.50	4.2	49	600	0.25	0.1	23.0
TMMBZ5257B	KM2	31.35	33.00	34.65	3.8	58	700	0.25	0.1	25.0
TMMBZ5258B	KM3	34.20	36.00	37.80	3.4	70	700	0.25	0.1	27.0
TMMBZ5259B	KM4	37.05	39.00	40.95	3.2	80	800	0.25	0.1	30.0
TMMBZ5260B	KM5	40.85	43.00	45.15	3.0	93	900	0.25	0.1	33.0
TMMBZ5261B	KN1	44.65	47.00	49.35	2.7	105	1000	0.25	0.1	36.0
TMMBZ5262B	KN2	48.45	51.00	53.55	2.5	125	1100	0.25	0.1	39.0
TMMBZ5263B	KM8	53.20	56.00	58.80	2.2	150	1300	0.25	0.1	43.0
TMMBZ5265B	KN5	58.90	62.00	65.10	2.0	185	1400	0.25	0.1	47.0
TMMBZ5267B	KP2	71.25	75.00	78.75	1.7	270	1700	0.25	0.1	56.0

SMT-Type Zener Diode

TMMBZ5221B-TMMBZ5267B

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

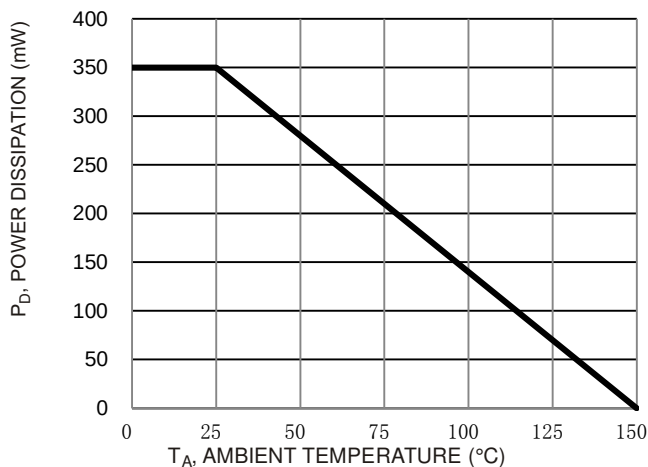


Fig. 1 Power Dissipation vs Ambient Temperature

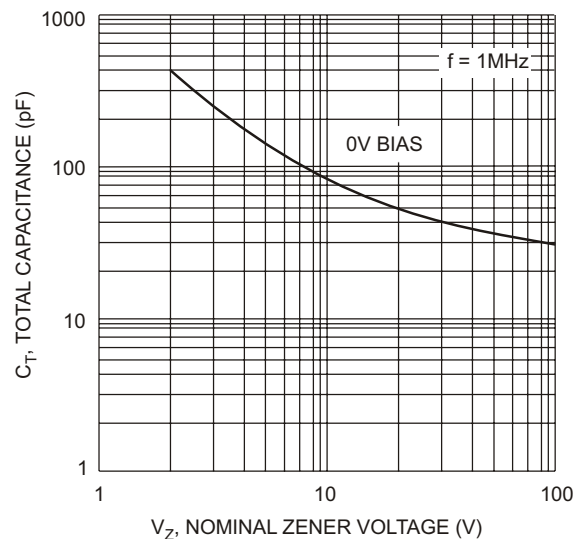


Fig. 2 Typical Capacitance

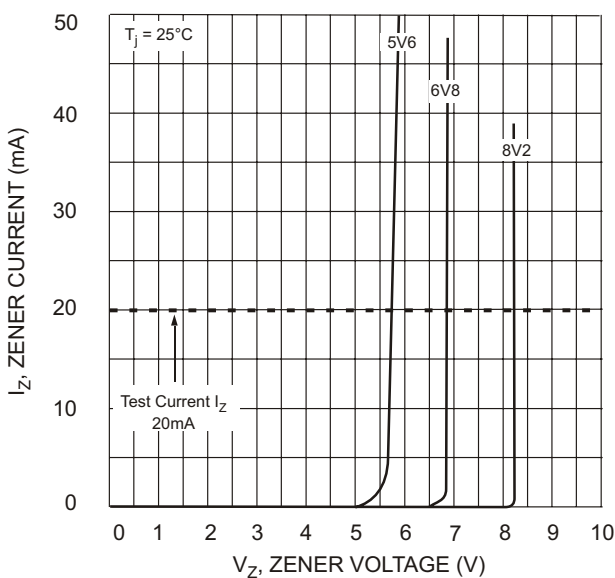


Fig. 3 Zener Breakdown Characteristics

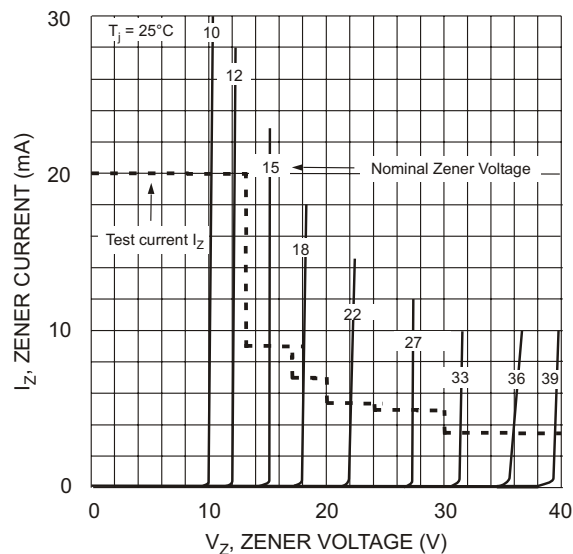


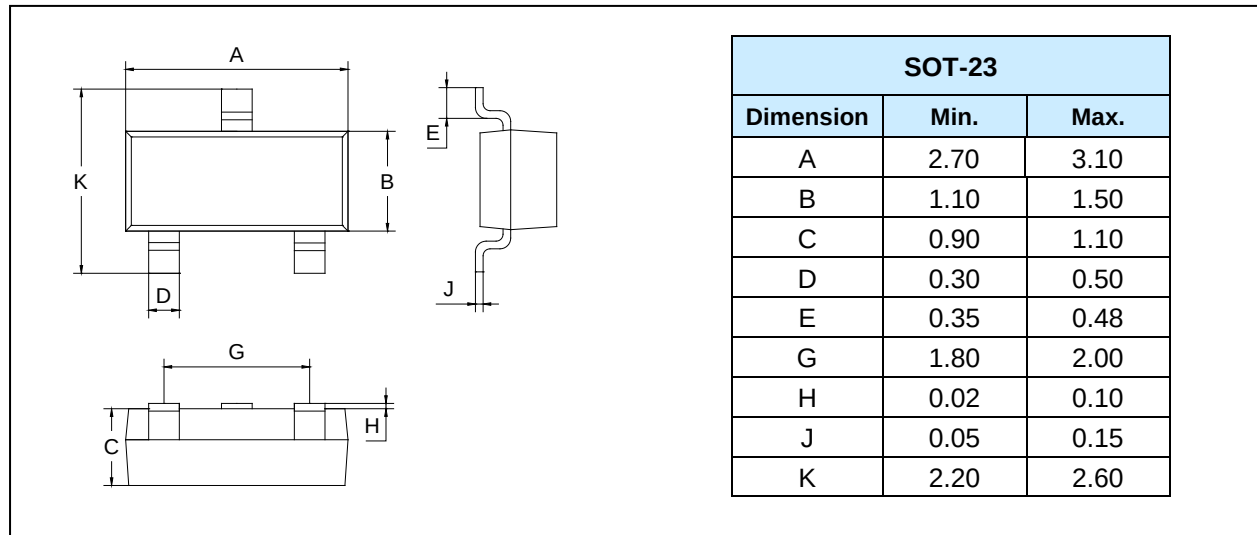
Fig. 4 Zener Breakdown Characteristics

SMT-Type Zener Diode

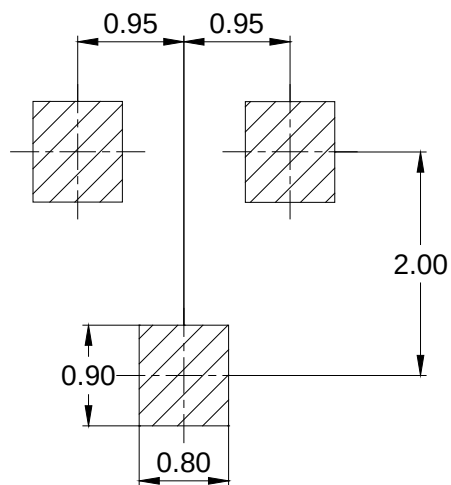
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PACKAGE OUTLINE (Unit: mm)

Plastic surface mounted package



MOUNTING PAD LAYOUT (Unit: mm)



PACKAGE INFORMATION

Part Number	Package	Shipping Quantity
TMMBZ5221B – TMMBZ5267B	SOT-23	3000pcs / Tape & Reel