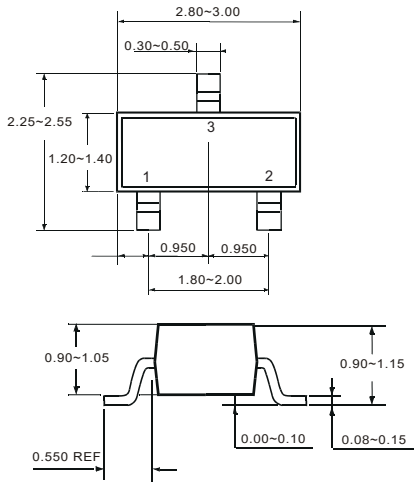
MMBZ5221B~MMBZ5259B

ZENER DIODES

VOLTAGE	2.4 to 39 Volt	POWER	0.35 Watt

SOT-23 Unit:mm



FEATURES

- Planar Die construction
- 350mW Power Dissipation
- Zener Voltages from 2.4V - 39V
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
Peak Pulse Power Dissipation on T_L=50°C (Notes A) Derate above 50°C	P_D	0.35	Watts
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load otes	I_{FSM}	4	Amps
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to + 150	°C

NOTES :

A.Mounted on 5mm² (0.013mm thick) land areas.

B.Measured on 8.3ms, and single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum

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ELECTRICAL CHARACTERISTICS @25°C

Type Number	Type Code	Zener Voltage Range (Note1)				Maximum Zener Impedance (Note 2)		Maximum Reverse Leakage Current (Note 1)	
		V_Z @ I_{ZT}			I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK} = 0.25mA	I_R	@ V_R
		Nom (V)	Min (V)	Max (V)	mA	Ω		μA	V
MMBZ5221B	KC1	2.4	2.28	2.52	20	30	1200	100	1.0
MMBZ5223B	KC3	2.7	2.57	2.84	20	30	1300	75	1.0
MMBZ5225B	KC5	3.0	2.85	3.15	20	30	1600	50	1.0
MMBZ5226B	KG1	3.3	3.14	3.47	20	28	1600	25	1.0
MMBZ5227B	KG2	3.6	3.42	3.78	20	24	1700	15	1.0
MMBZ5228B	KG3	3.9	3.71	4.10	20	23	1900	10	1.0
MMBZ5229B	KG4	4.3	4.09	4.52	20	22	2000	5.0	1.0
MMBZ5230B	KG5	4.7	4.4 7	4.94	20	19	1900	5.0	2.0
MMBZ5231B	KE1	5.1	4.85	5.36	20	17	1600	5.0	2.0
MMBZ5232B	KE2	5.6	5.32	5.88	20	11	1600	5.0	3.0
MMBZ5233B	KE3	6.0	5.70	6.30	20	7	1600	5.0	3.5
MMBZ5234B	KE4	6.2	5.89	6.51	20	7	1000	5.0	4.0
MMBZ5235B	KE5	6.8	6.46	7.14	20	5	750	3.0	5.0
MMBZ5236B	KF1	7.5	7.13	7.88	20	6	500	3.0	6.0
MMBZ5237B	KF2	8.2	7.79	8.61	20	8	500	3.0	6.5
MMBZ5238B	KF3	8.7	8.27	9.14	20	8	600	3.0	6.5
MMBZ5239B	KF4	9.1	8.65	9.56	20	10	600	3.0	7.0
MMBZ5240B	KF5	10	9.50	10.50	20	17	600	3.0	8.0
MMBZ5241B	KH1	11	10.45	11.55	20	22	600	2.0	8.4
MMBZ5242B	KH2	12	11.40	12.60	20	30	600	1.0	9.1
MMBZ5243B	KH3	13	12.35	13.65	9.5	13	600	0.5	9.9
MMBZ5245B	KH5	15	14.25	15.75	8.5	16	600	0.1	11
MMBZ5246B	KJ1	16	15.20	16.80	7.8	17	600	0.1	12
MMBZ5248B	KJ3	18	17.10	18.90	7.0	21	600	0.1	14
MMBZ5250B	KJ5	20	19.00	21.00	6.2	25	600	0.1	15
MMBZ5251B	KK1	22	20.90	23.10	5.6	29	600	0.1	17
MMBZ5252B	KK2	24	22.80	25.20	5.2	33	600	0.1	18
MMBZ5254B	KK4	27	25.65	28.35	5.0	41	600	0.1	21
MMBZ5255B	KK5	28	26.60	29.40	4.5	44	600	0.1	21
MMBZ5256B	KM1	30	28.50	31.50	4.2	49	600	0.1	23
MMBZ5257B	KM2	33	31.35	34.65	3.8	58	700	0.1	25
MMBZ5258B	KM3	36	34.20	37.80	3.4	70	700	0.1	27
MMBZ5259B	KM4	39	37.05	40.95	3.2	80	800	0.1	30

Notes: 1. Short duration test pulse used to minimize self-heating effect.
2. f = 1KHz.

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RATING AND CHARACTERISTIC CURVES

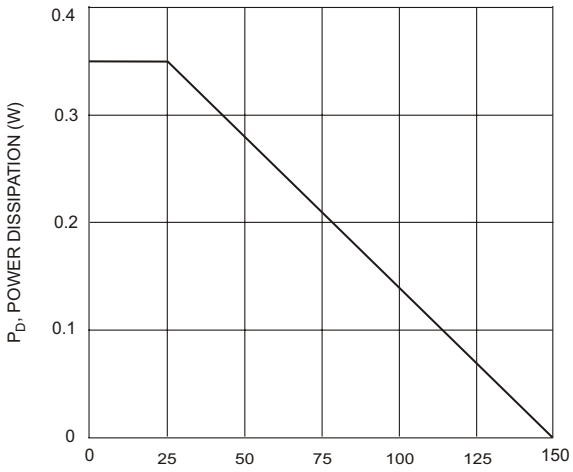

Fig. 1 Power Dissipation vs Ambient Temperature

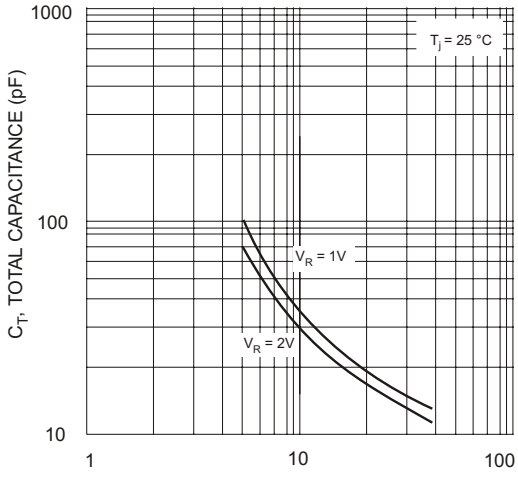

Fig. 2 Total Capacitance vs Nominal Zener Voltage

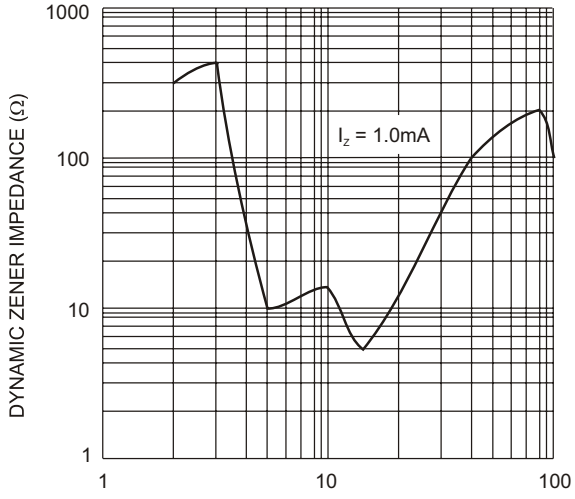

Fig. 3 Zener Voltage vs. Zener Impedence

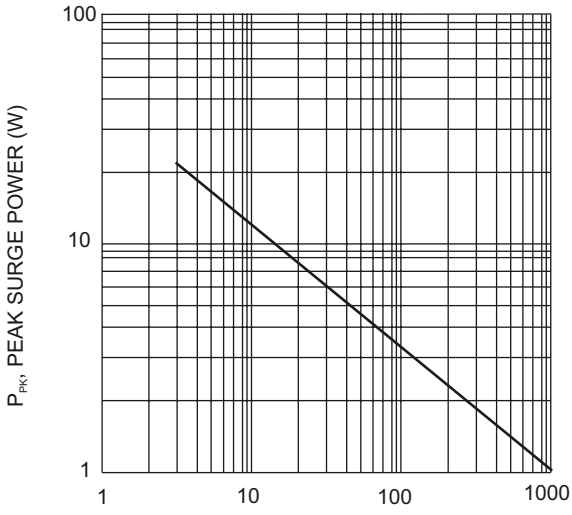

Fig. 4 Maximum Non-repetitive Surge Power

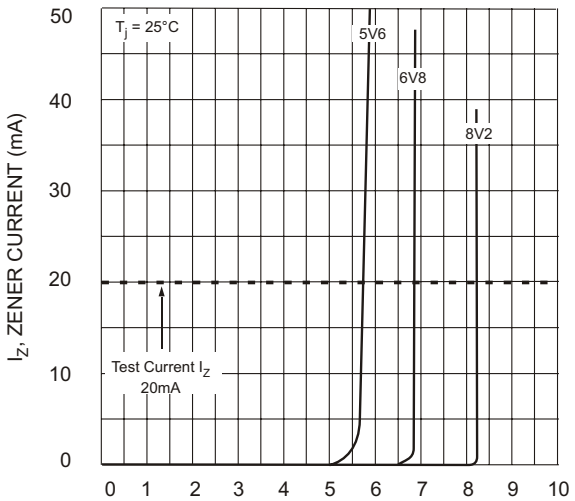

Fig. 5 Zener Breakdown Characteristics

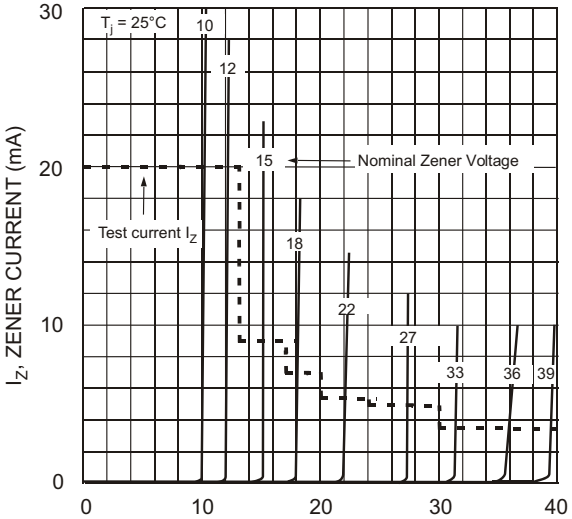

Fig. 6 Zener Breakdown Characteristics

ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
MMBZ5221B~MMBZ5259B	SOT-23	7 Inch	3000