Features

- Surface Mount Package
- ESD Protected up to 16KV (HBM)
- Halogen Free. “Green” Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

350 mW
Zener Diode
2.4 to 39 Volts

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 357°C/W Junction to Ambient

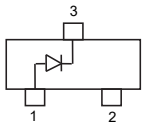
Parameter	Symbol	Rating	Conditions
Power Dissipation	P_D	350mW	Note 2
Peak Forward Surge Current	I_{FSM}	4.0A	Note 3
Maximum Forward Voltage	V_F	0.9V	I_F=10mA

Note: 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

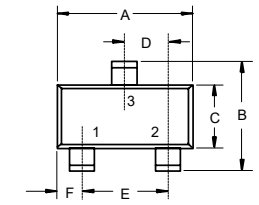
2. Mounted on FR4 PC Board With Our Suggested Solder Pad Layout

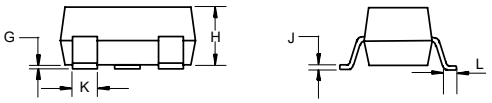
3. Measured on 8.3ms, Single Half Sine-wave or Equivalent Square Wave, Duty Cycle=4 Pulses Per Minute Maximum.

Internal Structure

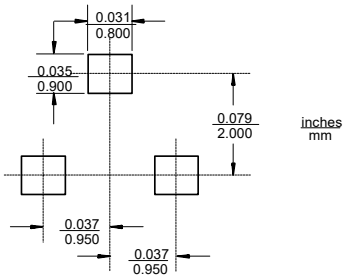


SOT-23





DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.012	0.020	0.30	0.51	
L	0.007	0.020	0.20	0.50	



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Nominal Zener Voltage(4,5)		Maximum Zener Impedance(6)			Maximum Reverse Leakage Current		Zener Voltage Temperature Coefficient	Marking Code
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{Zk} @ I_{ZK}	I_{ZK}	I_R	V_R		
	V	mA	Ω	Ω	mA	μA	V	%/°C	
MMBZ5221B	2.4	20	30	1200	0.25	100	1.0	-0.085	KC1
MMBZ5222B	2.5	20	30	1250	0.25	100	1.0	-0.085	KC2
MMBZ5223B	2.7	20	30	1300	0.25	75	1.0	-0.080	KC3
MMBZ5225B	3.0	20	29	1600	0.25	50	1.0	-0.075	KC5
MMBZ5226B	3.3	20	28	1600	0.25	25	1.0	-0.070	KG1
MMBZ5227B	3.6	20	24	1700	0.25	15	1.0	-0.065	KG2
MMBZ5228B	3.9	20	23	1900	0.25	10	1.0	-0.060	KG3
MMBZ5229B	4.3	20	22	2000	0.25	5.0	1.0	±0.055	KG4
MMBZ5230B	4.7	20	19	1900	0.25	5.0	2.0	±0.030	KG5
MMBZ5231B	5.1	20	17	1600	0.25	5.0	2.0	±0.030	KE1
MMBZ5232B	5.6	20	11	1600	0.25	5.0	3.0	+0.038	KE2
MMBZ5233B	6.0	20	7.0	1600	0.25	5.0	3.5	+0.040	KE3
MMBZ5234B	6.2	20	7.0	1000	0.25	5.0	4.0	+0.045	KE4
MMBZ5235B	6.8	20	5.0	750	0.25	3.0	5.0	+0.050	KE5
MMBZ5236B	7.5	20	6.0	500	0.25	3.0	6.0	+0.058	KF1
MMBZ5237B	8.2	20	8.0	500	0.25	3.0	6.5	+0.062	KF2
MMBZ5238B	8.7	20	8.0	600	0.25	3.0	6.5	+0.065	KF3
MMBZ5239B	9.1	20	10	600	0.25	3.0	7.0	+0.068	KF4
MMBZ5240B	10	20	17	600	0.25	3.0	8.0	+0.075	KF5
MMBZ5241B	11	20	22	600	0.25	2.0	8.4	+0.076	KH1
MMBZ5242B	12	20	30	600	0.25	1.0	9.1	+0.077	KH2
MMBZ5243B	13	9.5	13	600	0.25	0.5	9.9	+0.079	KH3
MMBZ5244B	14	9.0	15	600	0.25	0.1	10	+0.081	KH4
MMBZ5245B	15	8.5	16	600	0.25	0.1	11	+0.082	KH5
MMBZ5246B	16	7.8	17	600	0.25	0.1	12	+0.083	KJ1
MMBZ5248B	18	7.0	21	600	0.25	0.1	14	+0.085	KJ3
MMBZ5250B	20	6.2	25	600	0.25	0.1	15	+0.086	KJ5
MMBZ5251B	22	5.6	29	600	0.25	0.1	17	+0.087	KK1
MMBZ5252B	24	5.2	33	600	0.25	0.1	18	+0.088	KK2
MMBZ5254B	27	5.0	41	600	0.25	0.1	21	+0.090	KK4
MMBZ5255B	28	4.5	44	600	0.25	0.1	21	+0.091	KK5
MMBZ5256B	30	4.2	49	600	0.25	0.1	23	+0.091	KM1
MMBZ5257B	33	3.8	58	700	0.25	0.1	25	+0.092	KM2
MMBZ5258B	36	3.4	70	700	0.25	0.1	27	+0.093	KM3
MMBZ5259B	39	3.2	80	800	0.25	0.1	30	+0.094	KM4

Note:

4. Tolerance and Type Number Designation. The Type Numbers Listed Have a Standard Tolerance on The Nominal Zener Voltage of ±5%.
5. Zener Voltage (V_Z) Measurement. Guarantess The Zener Voltage When Measured at 90 Seconds While Maintaining The Lead Temperature (T_L) at 25°C from The Diode Body.
6. Zener Impedance (Z_Z) Derivation. The Zener Impedance is Derived from The 60 Cycle AC Voltage, Which Results When an AC Current Having an rms Value Equal to 10% of The DC Zener Current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}.

Curve Characteristics

Fig. 1 - Power Derating Curve

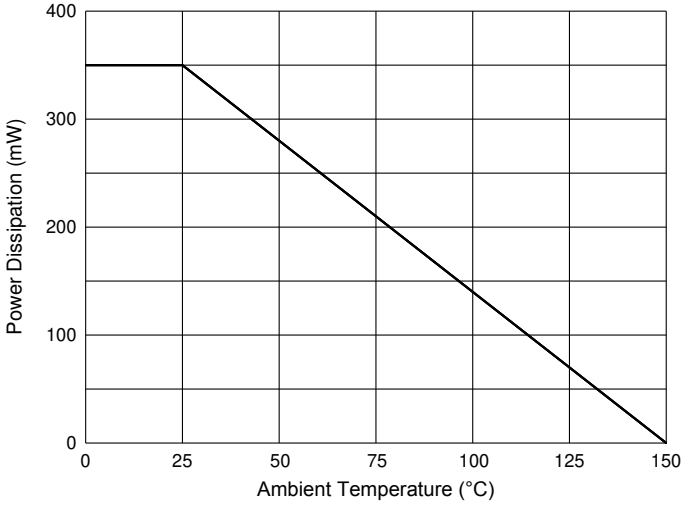


Fig. 2 - Typical Zener Breakdown Characteristics

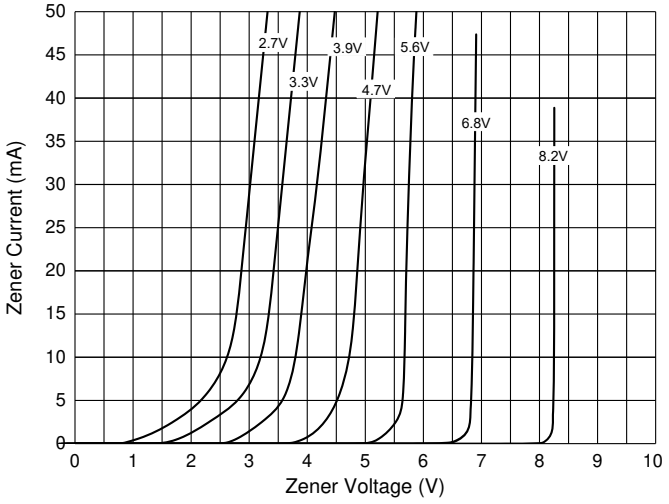
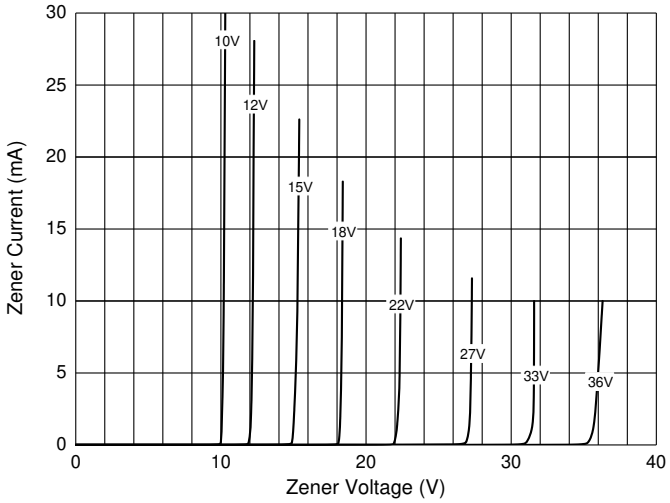


Fig. 3 - Typical Zener Breakdown Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel

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