

Features

- Wide Voltage Range Available
- Small Outline Package For Space Savings
- Surface Mount Package
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- 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)

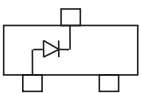
Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance : 625°C/W Junction to Ambient

Parameter	Symbol	Rating	Conditions
Power Dissipation	P_D	200mW	Note 1
Maximum Forward Voltage	V_F	0.9V	$I_F=10mA$

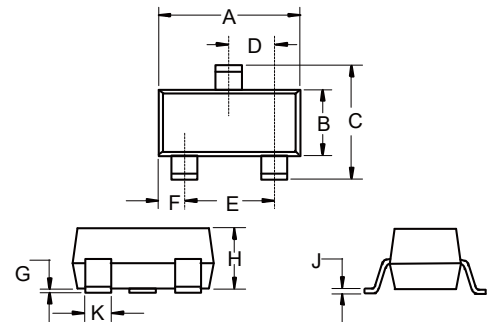
Note:1. Mounted on FR4 PC Board With Our Suggested Solder Pad Layout .

Internal Structure



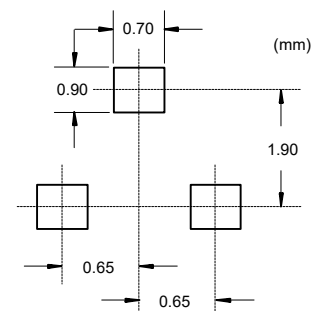
200 mWatt Zener Diodes 2.4V to 39 Volts

SOT-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026		0.65		TYP.
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.044	0.90	1.10	
J	0.002	0.010	0.05	0.25	
K	0.006	0.016	0.15	0.40	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Nominal Zener Voltage ^(2,3)	Test Current	Maximum Zener Impedance ⁽⁴⁾			Maximum Reverse Leakage Current		Marking Code	
	V _Z		I _{ZT}	Z _{ZT} @ I _{ZT}	I _{ZK}	Z _{ZK}	I _R		V _R
	V		mA	Ω	mA	Ω	μA		V
MMBZ5221BW	2.4	20	30	0.25	1200	100	1.0	KC1	
MMBZ5222BW	2.5	20	30	0.25	1250	100	1.0	KC2	
MMBZ5223BW	2.7	20	30	0.25	1300	75	1.0	KC3	
MMBZ5225BW	3.0	20	29	0.25	1600	50	1.0	KC5	
MMBZ5226BW	3.3	20	28	0.25	1600	25	1.0	KG1	
MMBZ5227BW	3.6	20	24	0.25	1700	15	1.0	KG2	
MMBZ5228BW	3.9	20	23	0.25	1900	10	1.0	KG3	
MMBZ5229BW	4.3	20	22	0.25	2000	5.0	1.0	KG4	
MMBZ5230BW	4.7	20	19	0.25	1900	5.0	2.0	KG5	
MMBZ5231BW	5.1	20	17	0.25	1600	5.0	2.0	KE1	
MMBZ5232BW	5.6	20	11	0.25	1600	5.0	3.0	KE2	
MMBZ5234BW	6.2	20	7.0	0.25	1000	5.0	4.0	KE4	
MMBZ5235BW	6.8	20	5.0	0.25	750	3.0	5.0	KE5	
MMBZ5236BW	7.5	20	6.0	0.25	500	3.0	6.0	KF1	
MMBZ5237BW	8.2	20	8.0	0.25	500	3.0	6.5	KF2	
MMBZ5239BW	9.1	20	10	0.25	600	3.0	7.0	KF4	
MMBZ5240BW	10	20	17	0.25	600	3.0	8.0	KF5	
MMBZ5241BW	11	20	22	0.25	600	2.0	8.4	KH1	
MMBZ5242BW	12	20	30	0.25	600	1.0	9.1	KH2	
MMBZ5243BW	13	9.5	13	0.25	600	0.5	9.9	KH3	
MMBZ5244BW	14	9.0	15	0.25	600	0.1	10	KH4	
MMBZ5245BW	15	8.5	16	0.25	600	0.1	11	KH5	
MMBZ5246BW	16	7.8	17	0.25	600	0.1	12	KJ1	
MMBZ5248BW	18	7.0	21	0.25	600	0.1	14	KJ3	
MMBZ5250BW	20	6.2	25	0.25	600	0.1	15	KJ5	
MMBZ5251BW	22	5.6	29	0.25	600	0.1	17	KK1	
MMBZ5252BW	24	5.2	33	0.25	600	0.1	18	KK2	
MMBZ5254BW	27	5.0	41	0.25	600	0.1	21	KK4	
MMBZ5255BW	28	4.5	44	0.25	600	0.1	21	KK5	
MMBZ5256BW	30	4.2	49	0.25	600	0.1	23	KM1	
MMBZ5257BW	33	3.8	58	0.25	700	0.1	25	KM2	
MMBZ5258BW	36	3.4	70	0.25	700	0.1	27	KM3	
MMBZ5259BW	39	3.2	80	0.25	800	0.1	30	KM4	

Note:

2. Tolerance and Type Number Designation. The Type Numbers Listed Have a Standard Tolerance on The Nominal Zener Voltage of ±5%.
3. Zener Voltage (V_Z) Measurement. Guarantees The Zener Voltage When Measured at 90 Seconds While Maintaining The Lead Temperature (T_L) at 25°C, from The Diode Body.
4. 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

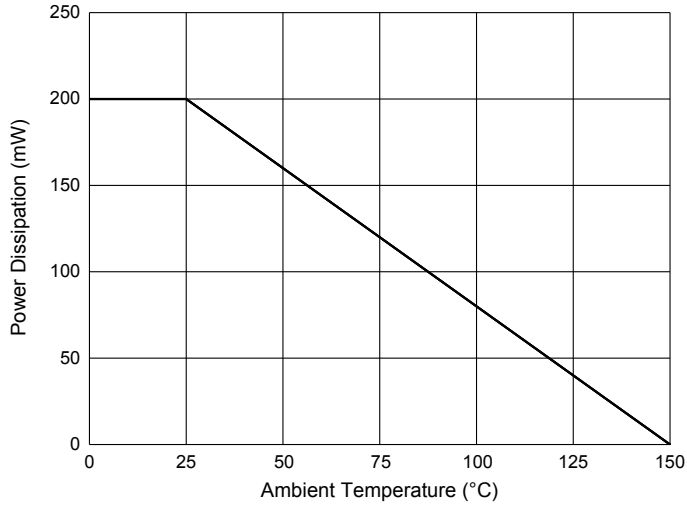
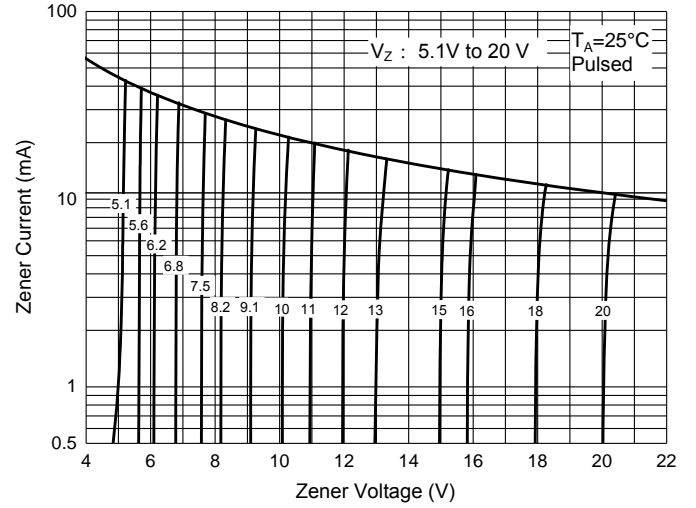


Fig. 2 - Typical Zener Breakdown Characteristics



Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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