

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 t ("P" Suffix Designates RoHS Compliant. See Ordering Information)

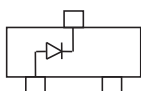
Maximum Ratings

- 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	$I_F=10mA$

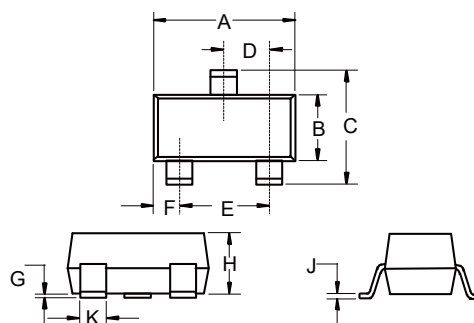
Note:1. Mounted on FR4 PC Board With Our Suggested Solder Pad Layout .

Internal Structure



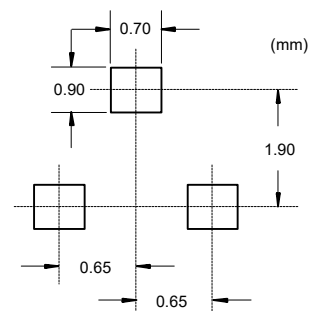
200 mWatt Zener Diodes 2.4V to 39 Volts

SOT-323



DIMENSIONS					
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 _{YT} @ 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/C1
MMBZ5222BW	2.5	20	30	0.25	1250	100	1.0	KC2/C2
MMBZ5223BW	2.7	20	30	0.25	1300	75	1.0	KC3/C3
MMBZ5225BW	3.0	20	29	0.25	1600	50	1.0	KC5/C5
MMBZ5226BW	3.3	20	28	0.25	1600	25	1.0	KG1/D1
MMBZ5227BW	3.6	20	24	0.25	1700	15	1.0	KG2/D2
MMBZ5228BW	3.9	20	23	0.25	1900	10	1.0	KG3/D3
MMBZ5229BW	4.3	20	22	0.25	2000	5.0	1.0	KG4/D4
MMBZ5230BW	4.7	20	19	0.25	1900	5.0	2.0	KG5/D5
MMBZ5231BW	5.1	20	17	0.25	1600	5.0	2.0	KE1/E1
MMBZ5232BW	5.6	20	11	0.25	1600	5.0	3.0	KE2/E2
MMBZ5234BW	6.2	20	7.0	0.25	1000	5.0	4.0	KE4/E4
MMBZ5235BW	6.8	20	5.0	0.25	750	3.0	5.0	KE5/E5
MMBZ5236BW	7.5	20	6.0	0.25	500	3.0	6.0	KF1/F1
MMBZ5237BW	8.2	20	8.0	0.25	500	3.0	6.5	KF2/F2
MMBZ5239BW	9.1	20	10	0.25	600	3.0	7.0	KF4/F4
MMBZ5240BW	10	20	17	0.25	600	3.0	8.0	KF5/F5
MMBZ5241BW	11	20	22	0.25	600	2.0	8.4	KH1/H1
MMBZ5242BW	12	20	30	0.25	600	1.0	9.1	KH2/H2
MMBZ5243BW	13	9.5	13	0.25	600	0.5	9.9	KH3/H3
MMBZ5244BW	14	9.0	15	0.25	600	0.1	10	KH4/H4
MMBZ5245BW	15	8.5	16	0.25	600	0.1	11	KH5/H5
MMBZ5246BW	16	7.8	17	0.25	600	0.1	12	KJ1/J1
MMBZ5248BW	18	7.0	21	0.25	600	0.1	14	KJ3/J3
MMBZ5250BW	20	6.2	25	0.25	600	0.1	15	KJ5/J5
MMBZ5251BW	22	5.6	29	0.25	600	0.1	17	KK1/K1
MMBZ5252BW	24	5.2	33	0.25	600	0.1	18	KK2/K2
MMBZ5254BW	27	5.0	41	0.25	600	0.1	21	KK4/K4
MMBZ5255BW	28	4.5	44	0.25	600	0.1	21	KK5/K5
MMBZ5256BW	30	4.2	49	0.25	600	0.1	23	KM1/M1
MMBZ5257BW	33	3.8	58	0.25	700	0.1	25	KM2/M2
MMBZ5258BW	36	3.4	70	0.25	700	0.1	27	KM3/M3
MMBZ5259BW	39	3.2	80	0.25	800	0.1	30	KM4/M4

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

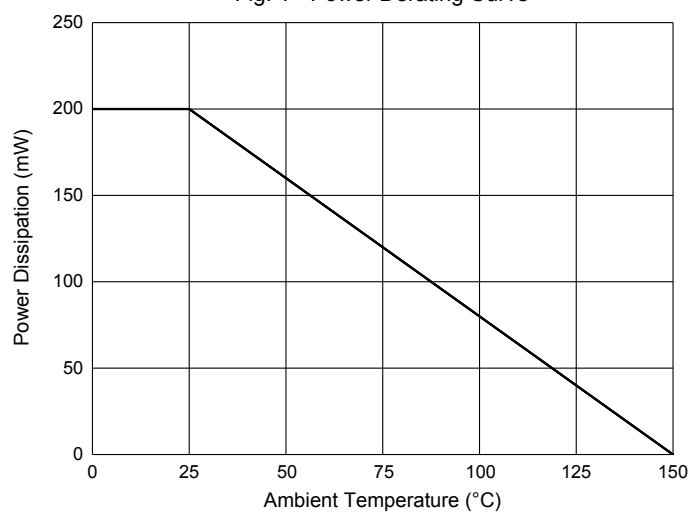
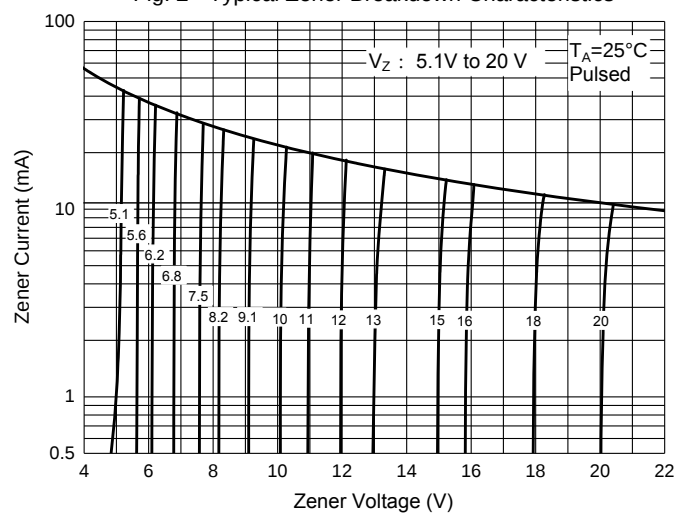


Fig. 2 - Typical Zener Breakdown Characteristics



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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