Micro Commercial Components

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MMBZ5221BW THRU MMBZ5259BW

200 mW Zener Diode 2.4 to 39 Volts

Features

- Wide Voltage Range Available
- Small Outline Package For Space Savings
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Surface Mount Package
- ∉ Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

Maximum Ratings

- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

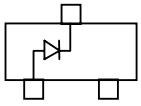
Maximum Ratings @ 25°C Unless Otherwise Specified

Zener Current	I_F	10	mA
Maximum Forward Voltage	V_F	0.9	V
Power Dissipation (Notes A)	P_d	200	mWatt
Thermal Resistance Juntion to Ambient Air (Notes A)	R_{thJA}	357	K/W

NOTES:

A. Mounted on FR4 PC board with our suggested solder pad layout .

*Pin Configuration - Top View



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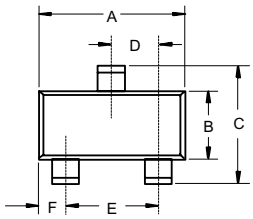
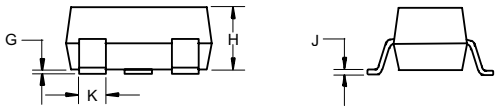
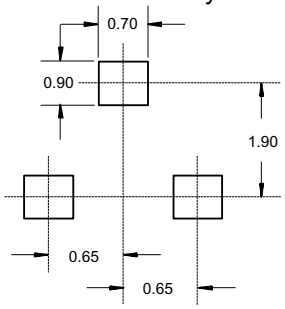




DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.012	.016	.30	.40	

Suggested Solder Pad Layout



ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER	MARKING	NOMINAL ZENER VOLTAGE V_Z @ I_{ZT} VOLTS	TEST CURRENT I_{ZT} mA	MAXIMUM ZENER IMPEDANCE 'B' SUFFIX ONLY Z_{ZT} @ I_{ZT} OHMS	Z_{ZK} @I_{ZK} = 0.25mA OHMS	MAXIMUM REVERSE LEAKAGE CURRENT I_R σA	@ V_R VOLTS
MMBZ5221BW	KC1/C1	2.4	20	30	1200	100	1.0
MMBZ5222BW	KC2/C2	2.5	20	30	1250	100	1.0
MMBZ5223BW	KC3/C3	2.7	20	30	1300	75	1.0
MMBZ5225BW	KC5/C5	3.0	20	29	1600	50	1.0
MMBZ5226BW	KG1/D1	3.3	20	28	1600	25	1.0
MMBZ5227BW	KG2/D2	3.6	20	24	1700	15	1.0
MMBZ5228BW	KG3/D3	3.9	20	23	1900	10	1.0
MMBZ5229BW	KG4/D4	4.3	20	22	2000	5.0	1.0
MMBZ5230BW	KG5/D5	4.7	20	19	1900	5.0	2.0
MMBZ5231BW	KE1/E1	5.1	20	17	1600	5.0	2.0
MMBZ5232BW	KE2/E2	5.6	20	11	1600	5.0	3.0
MMBZ5234BW	KE4/E4	6.2	20	7.0	1000	5.0	4.0
MMBZ5235BW	KE5/E5	6.8	20	5.0	750	3.0	5.0
MMBZ5236BW	KF1/F1	7.5	20	6.0	500	3.0	6.0
MMBZ5237BW	KF2/F2	8.2	20	8.0	500	3.0	6.5
MMBZ5239BW	KF4/F4	9.1	20	10	600	3.0	7.0
MMBZ5240BW	KF5/F5	10	20	17	600	3.0	8.0
MMBZ5241BW	KH1/H1	11	20	22	600	2.0	8.4
MMBZ5242BW	KH2/H2	12	20	30	600	1.0	9.1
MMBZ5243BW	KH3/H3	13	9.5	13	600	0.5	9.9
MMBZ5245BW	KH5/H5	15	8.5	16	600	0.1	11
MMBZ5246BW	KJ1/J1	16	7.8	17	600	0.1	12
MMBZ5248BW	KJ3/J3	18	7.0	21	600	0.1	14
MMBZ5250BW	KJ5/J5	20	6.2	25	600	0.1	15
MMBZ5251BW	KK1/K1	22	5.6	29	600	0.1	17
MMBZ5252BW	KK2/K2	24	5.2	33	600	0.1	18
MMBZ5254BW	KK4/K4	27	5.0	41	600	0.1	21
MMBZ5255BW	KK5/K5	28	4.5	44	600	0.1	21
MMBZ5256BW	KM1/M1	30	4.2	49	600	0.1	23
MMBZ5257BW	KM2/M2	33	3.8	58	700	0.1	25
MMBZ5258BW	KM3/M3	36	3.4	70	700	0.1	27
MMBZ5259BW	KM4/M4	39	3.2	80	800	0.1	30

Note:

1. Tolerance and Type Number Designation. The type numbers listed have a standard tolerance on the nominal zener voltage of ±5%.
2. Specials Available Include:
   A. Nominal zener voltages between the voltages shown and tighter voltage tolerances.
   B. Matched sets.
3. Zener Voltage (V_Z) Measurement. Guarantees the zener voltage when measured at 90 seconds while maintaining the lead temperature (T_L) at 30°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}.
5. Surge Current (I_R) Non-Repetitive. The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current, I_{ZT}, per JEDEC registration

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