



**THE DATASHEET OF
MMBZ5231BW-TP**





Micro Commercial Components



Micro Commercial Components
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MMBZ5221BW
THRU
MMBZ5259BW

Features

- Halogen free available upon request by adding suffix "-HF"
Wide Voltage Range Available
Small Outline Package For Space Savings
High Temp Soldering: 260°C for 10 Seconds At Terminals
Surface Mount Package
Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1

Maximum Ratings

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

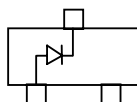
Maximum Ratings @ 25°C Unless Otherwise Specified

Table with 4 columns: Parameter, Symbol, Value, Units. Rows include Zener Current (10 mA), Maximum Forward Voltage (0.9 V), Power Dissipation (200 mWatt), and Thermal Resistance (357 K/W).

NOTES:

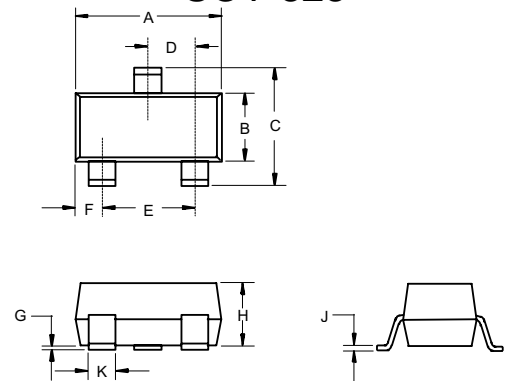
A. Mounted on FR4 PC board with our suggested solder pad layout .

*Pin Configuration - Top View



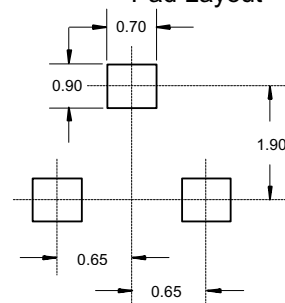
200 mW
Zener Diode
2.4 to 39 Volts

SOT-323



DIMENSIONS table with columns for DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Lists dimensions A through K with their respective min/max values in inches and mm.

Suggested Solder Pad Layout



MMBZ5221BW thru MMBZ5259BW

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} Z_{ZK} @ $I_{ZK} = 0.25mA$ OHMS OHMS		MAXIMUM REVERSE LEAKAGE CURRENT I_R @ V_R μA 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
MMBZ5244BW	KH4/H4	14	9.0	15	600	0.1	10
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:

- Tolerance and Type Number Designation. The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
- Specials Available Include:
 - Nominal zener voltages between the voltages shown and tighter voltage tolerances.
 - Matched sets.
- 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.
- 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} .
- 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; however, actual device capability is as described in Figure 5.



TM

Micro Commercial Components

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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