

MMBZ5221BW THRU MMBZ5259BW

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SILICON ZENER DIODES

FEATURES

- * Planar Die construction
- * Zener Voltages from 2.4V - 39V
- * 500mW Power Dissipation
- * Ideally Suited for Automated Assembly Processes

MECHANICAL DATA

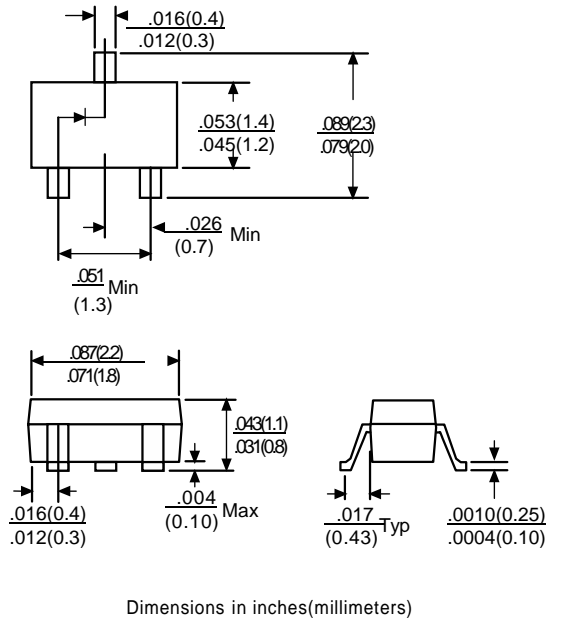
- * Case: Molded Plastic
- * Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- * Polarity: See Diagram Below
- * Mounting position: Any
- * Weight: 0.008 gram Approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.



SOT-323



	SYMBOL	VALUE	UNITS
Zener Current see Table "Characteristics"			
Power Dissipation (Notes 1) at Tamb=25°C	P _{tot}	500	mW
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Notes 2)	I _{FSM}	4.0	Amps
Maximum Forward Voltage at I _F =100mA	V _F	1.2	Volts
Operating and Storage Temperature	T _J ,T _{stg}	-55 to + 150	°C

Notes: 1. Mounted on 5.0mm² (.013mm thick) land areas.
 2. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

RATING AND CHARACTERISTIC CURVES (MMBZ5221BW THRU MMBZ5259BW)

TYPE	Nominal Zener Voltage $V_Z@I_{ZT}$	Zener Test Current I_{ZT}	Maximum Zener Impedance		I_{ZK}	Maximum Reverse Leakage Current		Typical Temperature Coefficient	Max. Zener Current $I_{ZM}@T_A$	Marking Code
			$Z_{ZT}@I_{ZT}$	$Z_{ZT}@I_{ZK}$		$I_R @ V_R$				
	Volts	mA	Ohms	Ohms	mA	μA	Volts	% / °C	mA	
MMBZ5221BW	2.4	20	30	1200	0.25	100	1.0	-0.070	188	C1
MMBZ5222BW	2.5	20	30	1250	0.25	100	1.0	-0.065	180	C2
MMBZ5223BW	2.7	20	30	1300	0.25	75	1.0	-0.060	167	C3
MMBZ5225BW	3.0	20	30	1600	0.25	50	1.0	-0.055	150	C5
MMBZ5226BW	3.3	20	28	1600	0.25	25	1.0	0.030	136	D1
MMBZ5227BW	3.6	20	24	1700	0.25	15	1.0	0.030	126	D2
MMBZ5228BW	3.9	20	23	1900	0.25	10	1.0	+0.038	115	D3
MMBZ5229BW	4.3	20	22	2000	0.25	5	1.0	+0.038	106	D4
MMBZ5230BW	4.7	20	19	1900	0.25	5	2.0	+0.045	97	D5
MMBZ5231BW	5.1	20	17	1600	0.25	5	2.0	+0.050	89	E1
MMBZ5232BW	5.6	20	11	1600	0.25	5	3.0	+0.058	81	E2
MMBZ5233BW	6.0	20	9	1600	0.25	5	3.5	+0.060	76	E3
MMBZ5234BW	6.2	20	7	1000	0.25	5	4.0	+0.062	73	E4
MMBZ5235BW	6.8	20	5	750	0.25	3	5.0	+0.065	67	E5
MMBZ5236BW	7.5	20	6	500	0.25	3	6.0	+0.068	61	F1
MMBZ5237BW	8.2	20	8	500	0.25	3	6.0	+0.075	55	F2
MMBZ5238BW	8.7	20	9	600	0.25	3	6.5	+0.075	52	F3
MMBZ5239BW	9.1	20	10	600	0.25	3	6.5	+0.076	50	F4
MMBZ5240BW	10	20	17	600	0.25	3	8.0	+0.077	45	F5
MMBZ5241BW	11	20	22	600	0.25	3	8.4	+0.079	41	H1
MMBZ5242BW	12	20	30	600	0.25	2	9.1	+0.082	38	H2
MMBZ5243BW	13	9.5	13	600	0.25	1	9.9	+0.082	35	H3
MMBZ5244BW	14	9.0	14	600	0.25	0.5	10	+0.082	32	H4
MMBZ5245BW	15	8.5	16	600	0.25	0.1	11	+0.083	30	H5
MMBZ5246BW	16	7.8	17	600	0.25	0.1	12	+0.084	28	J1
MMBZ5247BW	17	7.4	19	600	0.25	0.1	13	+0.084	27	J2
MMBZ5248BW	18	7.0	21	600	0.25	0.1	14	+0.085	25	J3
MMBZ5249BW	19	6.6	23	600	0.25	0.1	14	+0.085	24	J4
MMBZ5250BW	20	6.2	25	600	0.25	0.1	15	+0.086	23	J5
MMBZ5251BW	22	5.6	29	600	0.25	0.1	17	+0.086	21	K1
MMBZ5252BW	24	5.2	33	600	0.25	0.1	18	+0.087	19.1	K2
MMBZ5253BW	25	5.0	36	600	0.25	0.1	19	+0.087	18.2	K3
MMBZ5254BW	27	4.6	41	600	0.25	0.1	21	+0.087	16.8	K4
MMBZ5255BW	28	4.5	44	600	0.25	0.1	21	+0.089	16.2	K5
MMBZ5256BW	30	4.2	49	600	0.25	0.1	23	+0.090	15.1	M1
MMBZ5257BW	33	3.8	58	700	0.25	0.1	25	+0.091	13.8	M2
MMBZ5258BW	36	3.4	70	700	0.25	0.1	27	+0.091	12.6	M3
MMBZ5259BW	39	3.2	80	800	0.25	0.1	30	+0.092	11.6	M4

NOTE: Standard Zener Voltage Tolerance $\pm 5\%$

Breakdown characteristics

MMBZ52 SERIES

