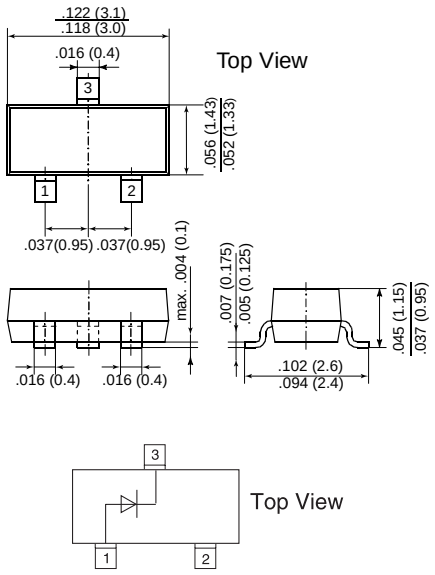
MMBZ5225 THRU MMBZ5267

ZENER DIODES

SOT-23



Dimensions in inches and (millimeters)

FEATURES

- Silicon Planar Power Zener Diodes
- Standard Zener voltage tolerance is ±5% tolerance with a “B” suffix. Other tolerances are available upon request
- These diodes are also available in Mini-MELF case with-the type designation ZMM5225 ... ZMM5267, DO-35 case with the type designation 1N5225 ... 1N5267 and SOD-123 case with the type designation MMSZ5225 ... MMSZ5267

MECHANICAL DATA

Case: SOT-23 Plastic Package
Weight: approx. 0.008 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	*VALUE*	*UNIT*
Zener Current see Table “Characteristics”			
Power Dissipation at T_A = 25°C	P_{tot}	225(1) 300(2)	mW
Maximum Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	–65 to +175	°C

	SYMBOL	*MIN.*	*TYP.*	*MAX.*	*UNIT*
Thermal Resistance Junction to Ambient Air	$R_{\Theta JA}$	–	–	556(1)	°C/W
Forward Voltage at I_F = 10 mA	V_F	–	–	0.9	Volts

NOTES:
(1) On FR-5 board using recommended solder pad layout.
(2) On alumina substrate.

GENERAL SEMICONDUCTOR®

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ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Type	Marking Code	Nominal Zener voltage(3) at I_{ZT} V_Z(V)	Test current I_{ZT}(mA)	Maximum Zener impedance(2)		Typical temperture coefficient α_{VZ} (%/K)	Maximum reverse leakage current	
				at I_{ZT} $Z_{ZT}(\Omega)$	at I_{ZK} = 0.25 mA $Z_{ZK}(\Omega)$		I_R (μA)	Test Voltage V_R (Volts)
MMBZ5225	18E	3.0	20	30	1600	-0.075	50	1.0
MMBZ5226	8A	3.3	20	28	1600	-0.070	25	1.0
MMBZ5227	8B	3.6	20	24	1700	-0.065	15	1.0
MMBZ5228	8C	3.9	20	23	1900	-0.060	10	1.0
MMBZ5229	8D	4.3	20	22	2000	-0.055	5	1.0
MMBZ5230	8E	4.7	20	19	1900	±0.030	5	2.0
MMBZ5231	8F	5.1	20	17	1600	±0.030	5	2.0
MMBZ5232	8G	5.6	20	11	1600	+0.038	5	3.0
MMBZ5233	8H	6.0	20	7	1600	+0.038	5	3.5
MMBZ5234	8J	6.2	20	7	1000	+0.045	5	4.0
MMBZ5235	8K	6.8	20	5	750	+0.050	3	5.0
MMBZ5236	8L	7.5	20	6	500	+0.058	3	6.0
MMBZ5237	8M	8.2	20	8	500	+0.062	3	6.5
MMBZ5238	8N	8.7	20	8	600	+0.065	3	6.5
MMBZ5239	8P	9.1	20	10	600	+0.068	3	7.0
MMBZ5240	8Q	10	20	17	600	+0.075	3	8.0
MMBZ5241	8R	11	20	22	600	+0.076	2	8.4
MMBZ5242	8S	12	20	30	600	+0.077	1	9.1
MMBZ5243	8T	13	9.5	13	600	+0.079	0.5	9.9
MMBZ5244	8U	14	9.0	15	600	+0.082	0.1	10
MMBZ5245	8V	15	8.5	16	600	+0.082	0.1	11
MMBZ5246	8W	16	7.8	17	600	+0.083	0.1	12
MMBZ5247	8X	17	7.4	19	600	+0.084	0.1	13
MMBZ5248	8Y	18	7.0	21	600	+0.085	0.1	14
MMBZ5249	8Z	19	6.6	23	600	+0.086	0.1	14
MMBZ5250	81A	20	6.2	25	600	+0.086	0.1	15
MMBZ5251	81B	22	5.6	29	600	+0.087	0.1	17
MMBZ5252	81C	24	5.2	33	600	+0.087	0.1	18
MMBZ5253	81D	25	5.0	35	600	+0.089	0.1	19
MMBZ5254	81E	27	4.6	41	600	+0.090	0.1	21
MMBZ5255	81F	28	4.5	44	600	+0.091	0.1	21
MMBZ5256	81G	30	4.2	49	600	+0.091	0.1	23
MMBZ5257	81H	33	3.8	58	700	+0.092	0.1	25
MMBZ5258	81J	36	3.4	70	700	+0.093	0.1	27
MMBZ5259	81K	39	3.2	80	800	+0.094	0.1	30
MMBZ5260	18F	43	3.0	93	900	+0.095	0.1	33
MMBZ5261	81M	47	2.7	105	1000	+0.095	0.1	36
MMBZ5262	81N	51	2.5	125	1100	+0.096	0.1	39
MMBZ5263	81P	56	2.2	150	1300	+0.096	0.1	43
MMBZ5264	81Q	60	2.1	170	1400	+0.097	0.1	46
MMBZ5265	81R	62	2.0	185	1400	+0.097	0.1	47
MMBZ5266	81S	68	1.8	230	1600	+0.097	0.1	52
MMBZ5267	81T	75	1.7	270	1700	+0.098	0.1	56

NOTES:

(1) The Zener Impedance is derived from the 1kHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Zener Impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

(2) Valid provided that leads at a distance of 10 mm from case are kept at ambient temperature.

(3) Measured with a pulse test current.

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