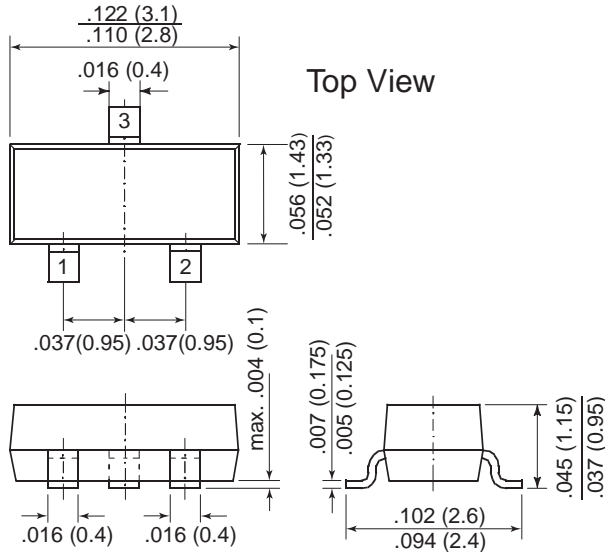




Zener Diodes

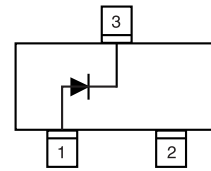
V_z Range 3.0 to 75V
Power Dissipation 300mW

TO-236AB (SOT-23)

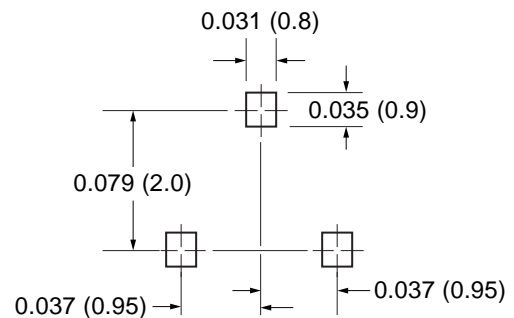


Dimensions in inches and (millimeters)

Top View



Mounting Pad Layout



Mechanical Data

Case: SOT-23 Plastic Package

Weight: approx. 0.008g

Packaging Codes/Options:

E8/10K per 13" reel (8mm tape), 30K per box

E9/3K per 7" reel (8mm tape), 30K per box

Features

- Silicon Planar Power Zener Diodes.
- Standard Zener voltage tolerance is $\pm 5\%$ tolerance with a "B" suffix. Other tolerances are available upon request.
- High temperature soldering guaranteed: 250°C/10 seconds at terminals.
- These diodes are also available in MiniMELF case with the type designation ZMM5225...ZMM5267, SOD-123 case with the type designation MMSZ5225... MMSZ5267.

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Zener Current (see Table "Characteristics")			
Power Dissipation at T _A = 25°C	P _{tot}	225 ⁽¹⁾ 300 ⁽²⁾	mW
Thermal Resistance Junction to Ambient Air	R _{θJA}	556 ⁽¹⁾	°C/W
Maximum Junction Temperature	T _j	150	°C
Storage Temperature Range	T _s	-65 to +175	°C

Notes:

(1) On FR-5 board using recommended solder pad layout

(2) On alumina substrate

MMBZ5225 thru MMBZ5267



Vishay Semiconductors
formerly General Semiconductor

Electrical Characteristics (T_A = 25°C unless otherwise noted) Maximum V_F = 0.9 V at I_F = 10 mA

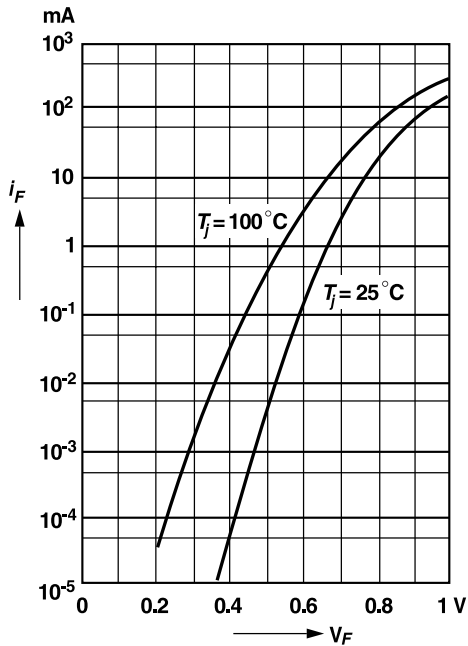
Type	Marking Code	Nominal Zener voltage ⁽³⁾ at I _{ZT} V _Z (V)	Test current I _{ZT} (mA)	Maximum Zener impedance ⁽²⁾		Typical temperature coefficient α _{VZ} (%/°C)	Maximum reverse leakage current	
				at I _{ZT} Z _{ZT} (Ω)	at I _{ZK} = 0.25 mA Z _{ZK} (Ω)		I _R (μA)	Test Voltage V _R (V)
MMBZ5225	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 case is kept at ambient temperature.
(3) Measured at thermal equilibrium.



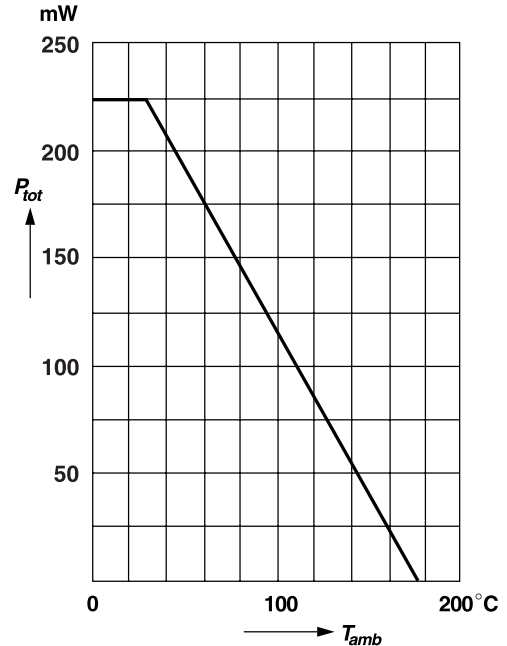
Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Forward characteristics

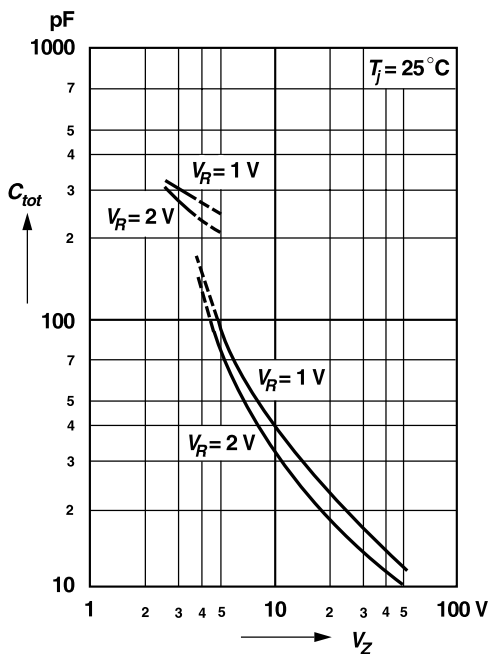


Admissible power dissipation versus ambient temperature

For conditions, see footnote in table "Absolute Maximum Ratings"



Capacitance versus Zener voltage



Pulse thermal resistance versus pulse duration

For conditions, see footnote in table "Absolute Maximum Ratings"

