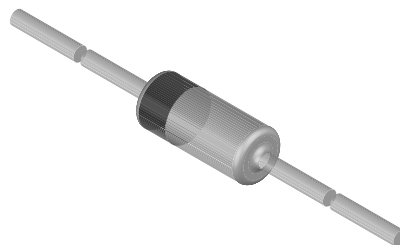


Small Signal Zener Diodes

Features

- Silicon Planar Power Zener Diodes
- Standard Zener voltage tolerance is $\pm 5\%$
- These diodes are also available in Mini-MELF case with the type designation TZM5221 ... TZM5267, SOT23 case with the type designations MMBZ5225 ... MMBZ5267 and SOD123 case with the types designations MMSZ5225 ... MMSZ5267
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



94 9367

Applications

- Voltage stabilization

Mechanical Data

Case: DO35 Glass case

Weight: approx. 125 mg

Cathode Band Color: black

Packaging codes/options:

TAP/10 k per Ammopack (52 mm tape), 30 k/box

TR/10 k per 13" reel, 30 k/box

Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Power dissipation	$T_L \leq 25\text{ }^{\circ}\text{C}$	P_{tot}	500	mW
Z-current		I_Z	P_{tot}/V_Z	mA

Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air	$l = 4\text{ mm}$, $T_L = \text{constant}$	R_{thJA}	300	K/W
Junction temperature		T_j	175	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 65 to + 175	$^{\circ}\text{C}$

Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Forward voltage	$I_F = 200\text{ mA}$	V_F			1.1	V

1N5221B to 1N5267B



Vishay Semiconductors

Electrical Characteristics

1N5221B...1N5267B

Partnumber	Nominal Zener Voltage ¹⁾	Test Current	Maximum Dynamic Impedance ¹⁾	Maximum Dynamic Impedance	Typical Temperature of Coefficient	Maximum Reverse Leakage Current	
	at I_{ZT} , V_Z	I_{ZT}	Z_{ZT} at I_{ZT}	Z_{ZK} at $I_{ZK} = 0.25$ mA	at I_{ZT}	I_R	V_R
	V	mA	Ω	Ω	α (%/K)	μ A	V
1N5221B	2.4	20	30	1200	- 0.085	100	1
1N5222B	2.5	20	30	1250	- 0.085	100	1
1N5223B	2.7	20	30	1300	- 0.080	75	1
1N5224B	2.8	20	30	1400	- 0.080	75	1
1N5225B	3	20	29	1600	- 0.075	50	1
1N5226B	3.3	20	28	1600	- 0.070	25	1
1N5227B	3.6	20	24	1700	- 0.065	15	1
1N5228B	3.9	20	23	1900	- 0.060	10	1
1N5229B	4.3	20	22	2000	+ 0.055	5	1
1N5230B	4.7	20	19	1900	+ 0.030	5	2
1N5231B	5.1	20	17	1600	+ 0.030	5	2
1N5232B	5.6	20	11	1600	+ 0.038	5	3
1N5233B	6	20	7	1600	+ 0.038	5	3.5
1N5234B	6.2	20	7	1000	+ 0.045	5	4
1N5235B	6.8	20	5	750	+ 0.050	3	5
1N5236B	7.5	20	6	500	+ 0.058	3	6
1N5237B	8.2	20	8	500	+ 0.062	3	6.5
1N5238B	8.7	20	8	600	+ 0.065	3	6.5
1N5239B	9.1	20	10	600	+ 0.068	3	7
1N5240B	10	20	17	600	+ 0.075	3	8
1N5241B	11	20	22	600	+ 0.076	2	8.4
1N5242B	12	20	30	600	+ 0.077	1	9.1
1N5243B	13	9.5	13	600	+ 0.079	0.5	9.9
1N5244B	14	9	15	600	+ 0.082	0.1	10
1N5245B	15	8.5	16	600	+ 0.082	0.1	11
1N5246B	16	7.8	17	600	+ 0.083	0.1	12
1N5247B	17	7.4	19	600	+ 0.084	0.1	13
1N5248B	18	7	21	600	+ 0.085	0.1	14
1N5249B	19	6.6	23	600	+ 0.086	0.1	14
1N5250B	20	6.2	25	600	+ 0.086	0.1	15
1N5251B	22	5.6	29	600	+ 0.087	0.1	17
1N5252B	24	5.2	33	600	+ 0.088	0.1	18
1N5253B	25	5	35	600	+ 0.089	0.1	19
1N5254B	27	4.6	41	600	+ 0.090	0.1	21
1N5255B	28	4.5	44	600	+ 0.091	0.1	21
1N5256B	30	4.2	49	600	+ 0.091	0.1	23
1N5257B	33	3.8	58	700	+ 0.092	0.1	25
1N5258B	36	3.4	70	700	+ 0.093	0.1	27
1N5259B	39	3.2	80	800	+ 0.094	0.1	30
1N5260B	43	3	93	900	+ 0.095	0.1	33
1N5261B	47	2.7	105	1000	+ 0.095	0.1	36
1N5262B	51	2.5	125	1100	+ 0.096	0.1	39
1N5263B	56	2.2	150	1300	+ 0.096	0.1	43
1N5264B	60	2.1	170	1400	+ 0.097	0.1	46

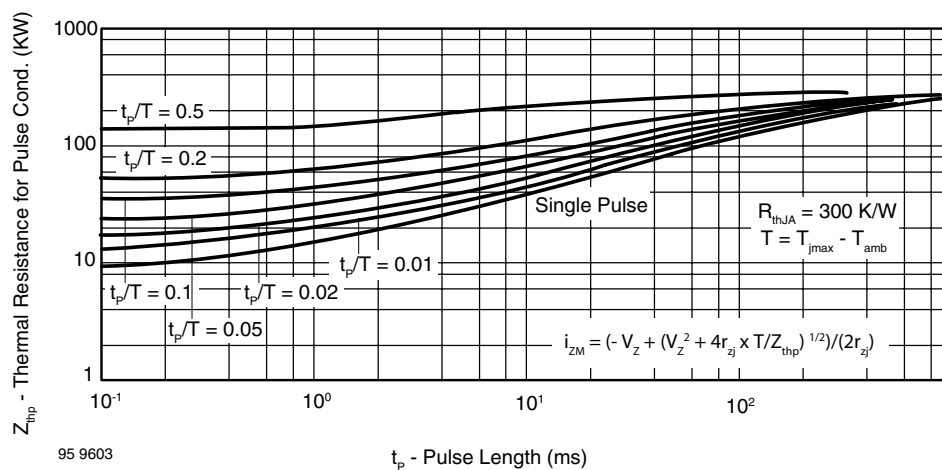


Figure 11. Thermal Response

Package Dimensions in millimeters (inches): DO35

