

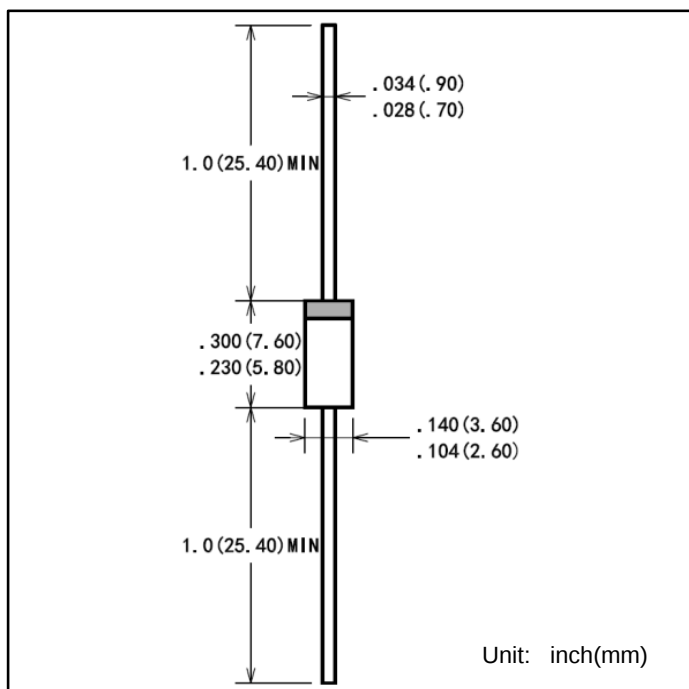
1N53xxB SERIES

Axial Zener Diodes
Zener Voltage 3.3 ~ 200 V

Features

- Glass passivated chip
 - Built-in strain relief
 - Low inductance
 - High peak reverse power dissipation
 - Low reverse leakage
 - For use in stabilizing and clipping with high power rating
 - RoHS compliant
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- Case: DO-15 Molded plastic
 - Lead: Solderable per MIL-STD-750, method 2026
 - Epoxy: UL 94V-0 rate flame retardant
 - Polarity: Color band denotes cathode end
 - Mounting position: Any

DO-15



Parameter	Symbols	Value	Unit
DC Power dissipation at $T_L = 75^\circ\text{C}^{(1)}$	P_D	5.0	W
Maximum forward voltage at $I_F=1.0\text{A}$	V_F	1.2	V
Junction temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Note : (1) T_L =Lead temperature at 3/8" (9.5mm)from body

Part Number	Nominal Zener Voltage @I _T			I _{zt} (mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	V _{Z AVE.} (V)	V _{Z MIN.} (V)	V _{Z MAX.} (V)		Z _{zt} MAX. ⁽¹⁾ @I _{zt}	Z _{zk} MAX. ⁽²⁾ @I _{zk}	I _{zk} (mA)	I _R (uA)@V _R	V _R (V)	
1N5333B	3.3	3.14	3.47	380	3.0	400	1.00	300	1.0	1437
1N5334B	3.6	3.42	3.78	350	2.5	500	1.00	150	1.0	1317
1N5335B	3.9	3.71	4.10	320	2.0	500	1.00	50	1.0	1216
1N5336B	4.3	4.09	4.52	290	2.0	500	1.00	10	1.0	1103
1N5337B	4.7	4.47	4.94	260	2.0	450	1.00	5	1.0	1009
1N5338B	5.1	4.85	5.36	240	1.5	400	1.00	1.0	1.0	930
1N5339B	5.6	5.32	5.88	220	1.0	400	1.00	1.0	2.0	856
1N5340B	6.0	5.70	6.30	200	1.0	300	1.00	1.0	3.0	790
1N5341B	6.2	5.89	6.51	200	1.0	200	1.00	1.0	3.0	765
1N5342B	6.8	6.46	7.14	175	1.0	200	1.00	10.0	5.2	700
1N5343B	7.5	7.13	7.88	175	1.5	200	1.00	10.0	5.7	630
1N5344B	8.2	7.79	8.61	150	1.5	200	1.00	10.0	6.2	580
1N5345B	8.7	8.27	9.14	150	2.0	200	1.00	10.0	6.6	545
1N5346B	9.1	8.65	9.56	150	2.0	150	1.00	7.5	6.9	520
1N5347B	10.0	9.50	10.50	125	2.0	125	1.00	5	7.6	475
1N5348B	11.0	10.45	11.55	125	2.5	125	1.00	5	8.4	430
1N5349B	12.0	11.40	12.60	100	2.5	125	1.00	2	9.1	395
1N5350B	13.0	12.35	13.65	100	2.5	100	1.00	1	9.9	365
1N5351B	14.0	13.30	14.70	100	2.5	75	1.00	1	10.6	340
1N5352B	15.0	14.25	15.75	75	2.5	75	1.00	1	11.5	315
1N5353B	16.0	15.20	16.80	75	2.5	75	1.00	1	12.2	295
1N5354B	17.0	16.15	17.85	70	2.5	75	1.00	0.5	12.9	280
1N5355B	18.0	17.10	18.90	65	2.5	75	1.00	0.5	13.7	265
1N5356B	19.0	18.05	19.95	65	3.0	75	1.00	0.5	14.4	250
1N5357B	20.0	19.00	21.00	65	3.0	75	1.00	0.5	15.2	237
1N5358B	22.0	20.90	23.10	50	3.5	75	1.00	0.5	16.7	216
1N5359B	24.0	22.80	25.20	50	3.5	100	1.00	0.5	18.2	198
1N5360B	25.0	23.75	26.25	50	4.0	110	1.00	0.5	19.0	190
1N5361B	27.0	25.65	28.35	50	5.0	120	1.00	0.5	20.6	176
1N5362B	28.0	26.60	29.40	50	6.0	130	1.00	0.5	21.2	170
1N5363B	30.0	28.50	31.50	40	8.0	140	1.00	0.5	22.8	158
1N5364B	33.0	31.35	34.65	40	10.0	150	1.00	0.5	25.1	144
1N5365B	36.0	34.20	37.80	30	11.0	160	1.00	0.5	27.4	132
1N5366B	39.0	37.05	40.95	30	14.0	170	1.00	0.5	29.7	122
1N5367B	43.0	40.85	45.15	30	20.0	190	1.00	0.5	32.7	110
1N5368B	47.0	44.65	49.35	25	25.0	210	1.00	0.5	35.8	100
1N5369B	51.0	48.45	53.55	25	27.0	230	1.00	0.5	38.8	93.0
1N5370B	56.0	53.20	58.80	20	35.0	280	1.00	0.5	42.6	86.0
1N5371B	60.0	57.00	63.00	20	40.0	350	1.00	0.5	45.5	79.0
1N5372B	62.0	58.90	65.10	20	42.0	400	1.00	0.5	47.1	76.0
1N5373B	68.0	64.60	71.40	20	44.0	500	1.00	0.5	51.7	70.0
1N5374B	75.0	71.25	78.75	20	45.0	620	1.00	0.5	56.0	63.0
1N5375B	82.0	77.90	86.10	15	65.0	720	1.00	0.5	62.2	58.0
1N5376B	87.0	82.65	91.35	15	75.0	760	1.00	0.5	66.0	54.5
1N5377B	91.0	86.45	95.55	15	75.0	760	1.00	0.5	69.2	52.5
1N5378B	100.0	95.00	105.0	12	90.0	800	1.00	0.5	76.0	47.5
1N5379B	110.0	104.5	115.5	12	125.0	1000	1.00	0.5	83.6	43.0
1N5380B	120.0	114.0	126.0	10	170.0	1150	1.00	0.5	91.2	39.5
1N5381B	130.0	123.5	136.5	10	190.0	1250	1.00	0.5	98.8	36.6
1N5382B	140.0	133.0	147.0	8	230.0	1500	1.00	0.5	106	34.0
1N5383B	150.0	142.5	157.5	8	330.0	1500	1.00	0.5	114	31.6
1N5384B	160.0	152.0	168.0	8	350.0	1650	1.00	0.5	122	29.4
1N5385B	170.0	161.5	178.5	8	380.0	1750	1.00	0.5	129	28.0
1N5386B	180.0	171.0	189.0	5	430.0	1750	1.00	0.5	137	26.4
1N5387B	190.0	180.5	199.5	5	450.0	1850	1.00	0.5	144	25.0
1N5388B	200.0	190.0	210.0	5	480.0	1850	1.00	0.5	152	23.6

Ratings and Characteristics Curves (TA=25°C unless otherwise noted)

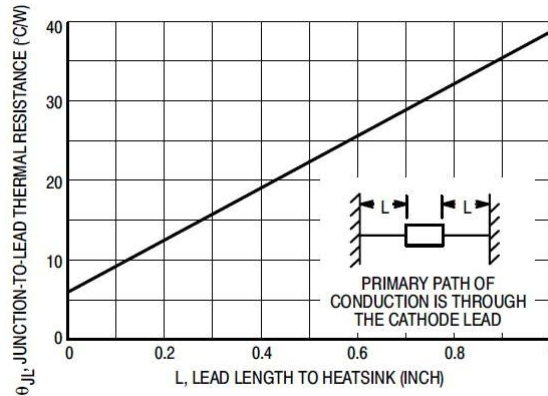


Figure 1. Typical Thermal Resistance

TEMPERATURE COEFFICIENTS

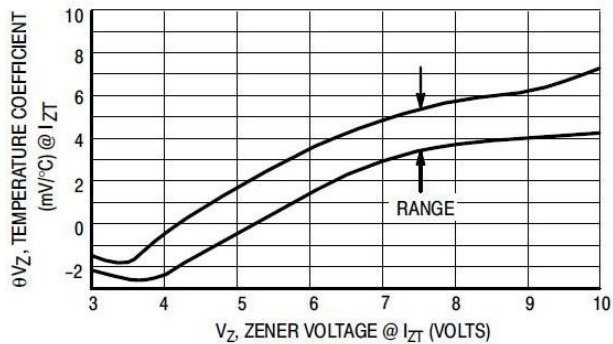


Figure 2. Temperature Coefficient-Range for Units 3 to 10 Volts

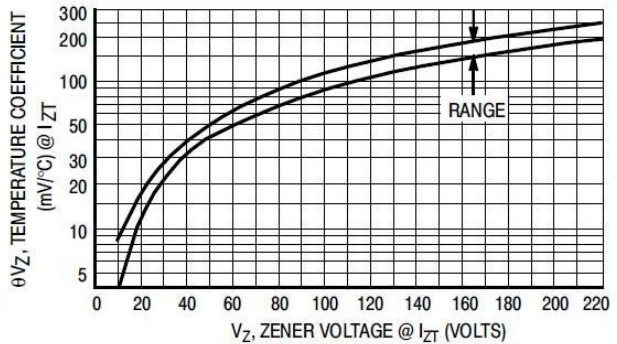


Figure 3. Temperature Coefficient-Range for Units 10 to 220 Volts

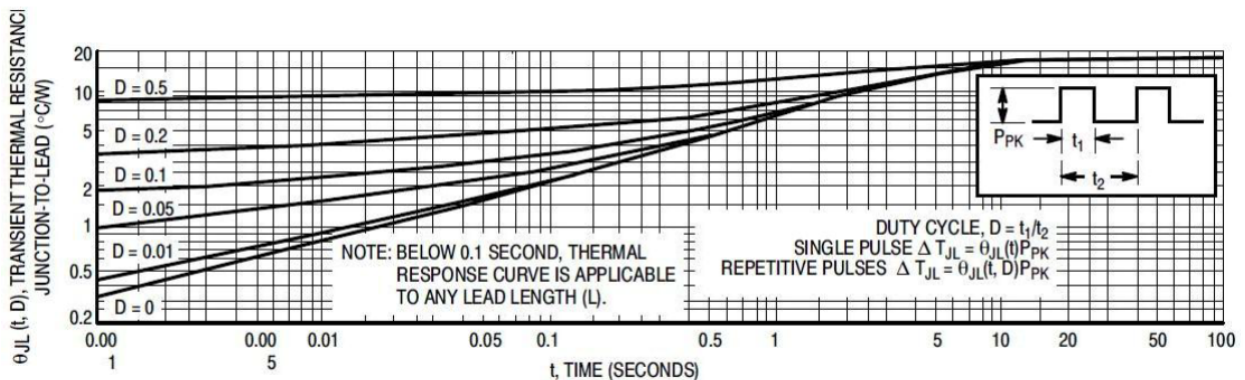


Figure 4. Typical Thermal Response
L, Lead Length = 3/8 Inch

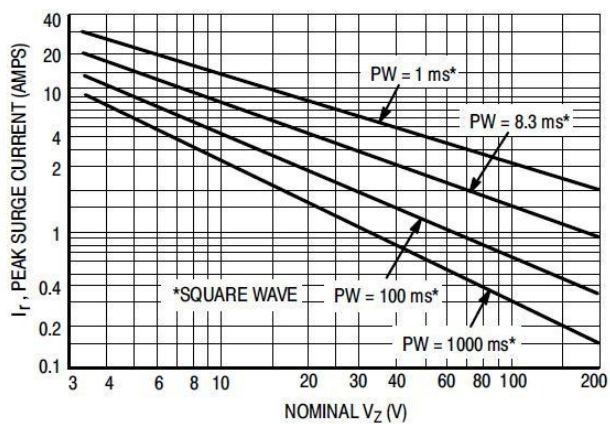


Figure 5. Maximum Non-Repetitive Surge Current versus Nominal Zener Voltage

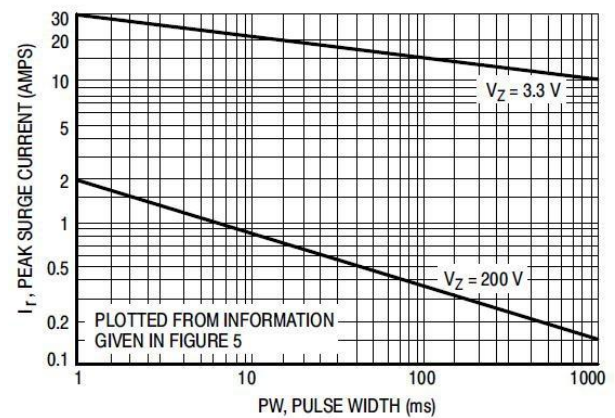


Figure 6. Peak Surge Current versus Pulse Width

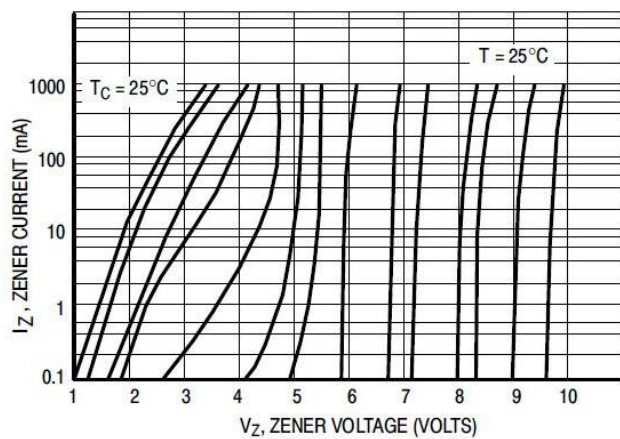


Figure 7. Zener Voltage versus Zener Current
 $V_Z = 3.3$ thru 10 Volts

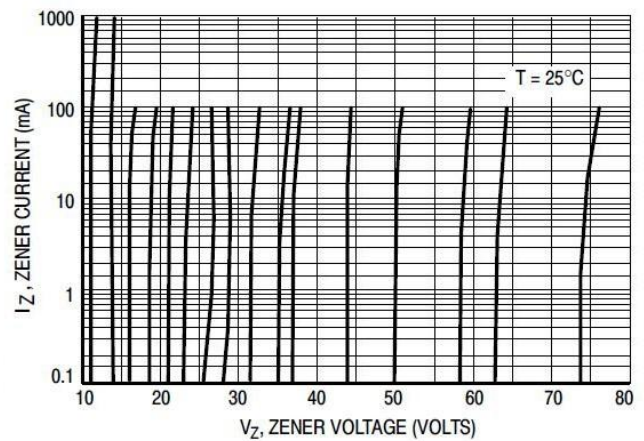


Figure 8. Zener Voltage versus Zener Current
 $V_Z = 11$ thru 75 Volts

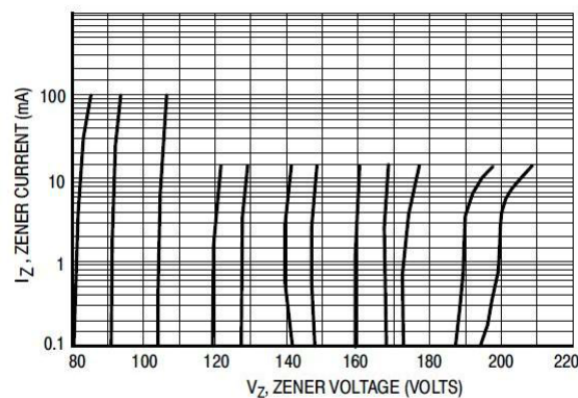


Figure 9. Zener Voltage versus Zener Current
 $V_Z = 82$ thru 200 Volts