



1N5333B-1N5378B

ZENER 5W SERIES

1N5333B - 1N5378B

V_Z : 3.3 - 100 Volts

P_D : 5 Watt

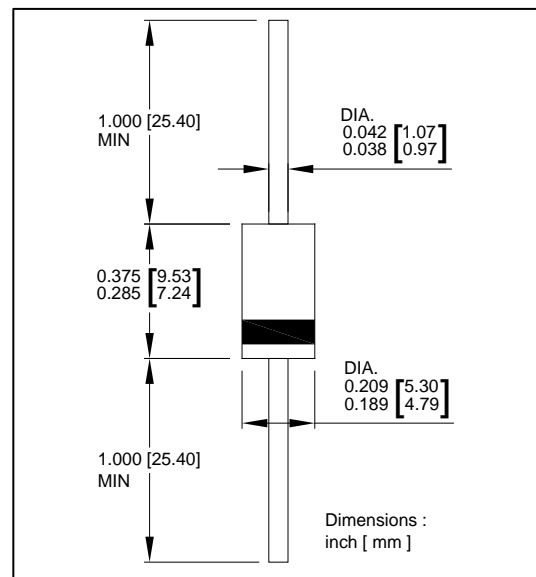
FEATURES

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Lead (Pb)-free component
- For use in stabilizing and clipping circuits with high power rating

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

DO-201



RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	Value	UNIT
DC Power Dissipation at $T_L = 75^\circ\text{C}$ (Note1)	P_D	5.0	Watts
Peak pulse current with a 10/1000 μs waveform	V_F	1.2	Volts
Junction Temperature Range	T_J	- 55 to + 175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 175	$^\circ\text{C}$

Note:

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



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

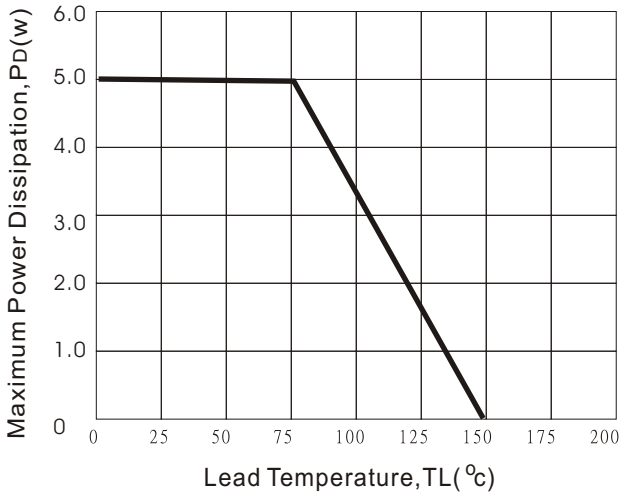


Fig1-Power Temperature Derating Curve

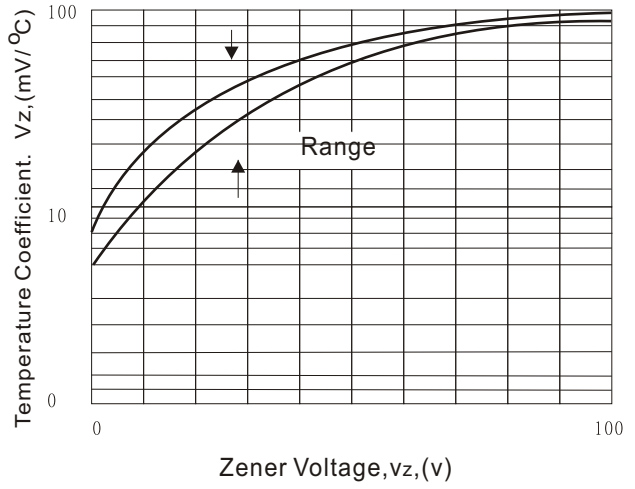


Fig.2- Temperature Coefficients v.s. Zener Voltage

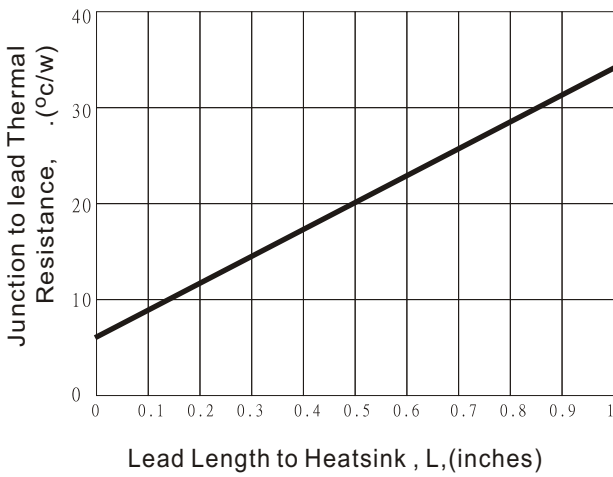


Fig.3 -Typical Thermal Resistance v.s Lead Length

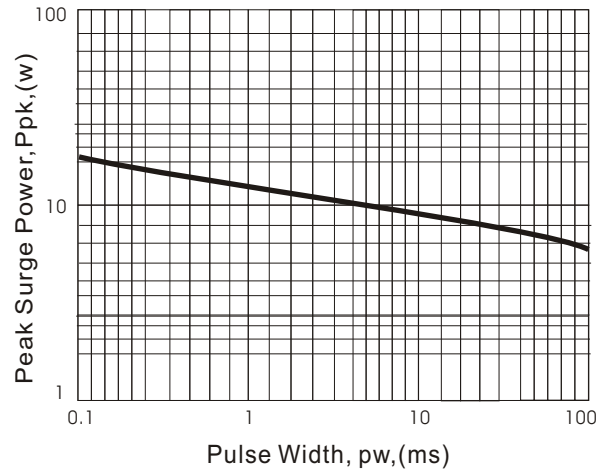


Fig. 4 -Maximum Surge Power

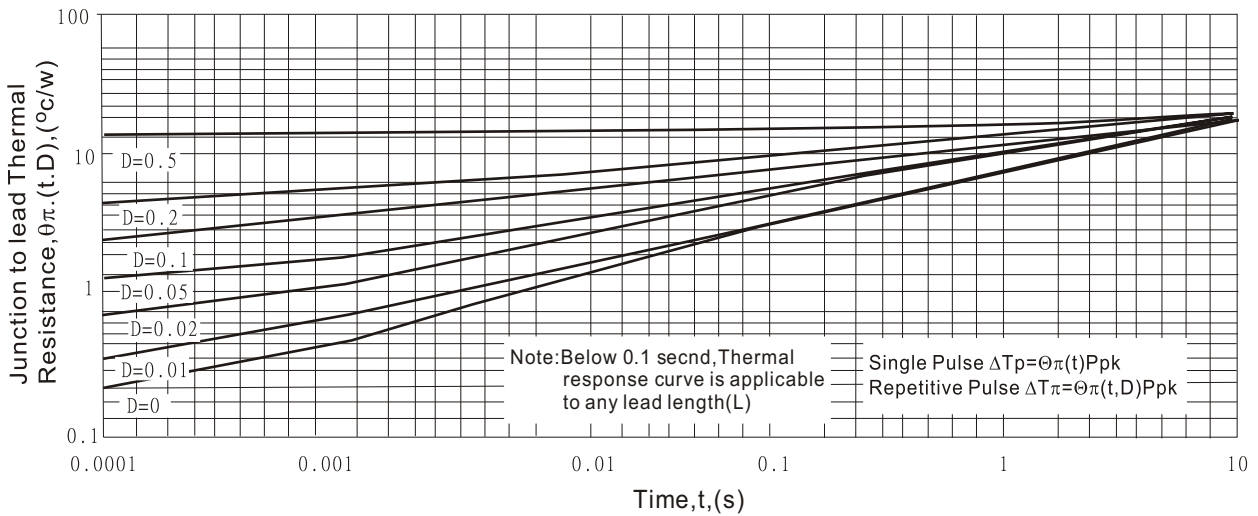


Fig.5 - Typical Thermal Response L, Lead Length=3/8inch



Electrical Characteristics(TA=25°C unless otherwise noted)

ZENER 5W SERIES	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	Vz @ IZT	IZT	ZzT @ IZT	Zzk @ Izk	Izk	IR @ VR		IzM
	(V)	(mA)	(Ω)	(Ω)	(mA)	(uA)	(V)	(mA)
1N5333B	3.3	380	3.0	400	1.00	300	1.0	1437
1N5334B	3.6	350	2.5	500	1.00	150	1.0	1317
1N5335B	3.9	320	2.0	500	1.00	50	1.0	1216
1N5336B	4.3	290	2.0	500	1.00	10.0	1.0	1103
1N5337B	4.7	260	2.0	450	1.00	5.0	1.0	1009
1N5338B	5.1	240	1.5	400	1.00	1.0	1.0	930
1N5339B	5.6	220	1.0	400	1.00	1.0	2.0	846
1N5340B	6.0	200	1.0	300	1.00	1.0	3.0	790
1N5341B	6.2	200	1.0	200	1.00	1.0	3.0	765
1N5342B	6.8	175.0	1.0	200	1.00	10.0	5.2	700
1N5343B	7.5	175.0	1.5	200	1.00	10.0	5.7	630
1N5344B	8.2	150.0	1.5	200	1.00	10.0	6.2	580
1N5345B	8.7	150.0	2.0	200	1.00	7.5	6.6	545
1N5346B	9.1	150.0	2.0	150	1.00	5.0	6.9	520
1N5347B	10.0	125.0	2.0	125	1.00	5.0	7.6	475
1N5348B	11.0	125.0	2.5	125	1.00	5.0	8.4	430
1N5349B	12.0	100.0	2.5	125	1.00	2.0	9.1	395
1N5350B	13.0	100.0	2.5	100	1.00	1.0	9.9	365
1N5351B	14.0	100.0	2.5	75	1.00	1.0	10.6	340
1N5352B	15.0	75.0	2.5	75	1.00	1.0	11.5	315
1N5353B	16.0	75.0	2.5	75	1.00	1.0	12.2	295
1N5354B	17.0	70.0	2.5	75	1.00	0.5	12.9	280
1N5355B	18.0	65.0	2.5	75	1.00	0.5	13.7	265
1N5356B	19.0	65.0	3	75	1.00	0.5	14.4	250
1N5357B	20.0	65.0	3	75	1.00	0.5	15.2	237
1N5358B	22.0	50.0	4	75	1.00	0.5	16.7	216
1N5359B	24.0	50.0	4	100	1.00	0.5	18.2	198
1N5360B	25.0	50.0	4	110	1.00	0.5	19.0	190
1N5361B	27.0	50.0	5	120	1.00	0.5	20.6	176
1N5362B	28.0	50.0	6	130	1.00	0.5	21.2	170
1N5363B	30.0	40.0	8	140	1.00	0.5	22.8	158
1N5364B	33.0	40.0	10	150	1.00	0.5	25.1	144
1N5365B	36.0	30.0	11	160	1.00	0.5	27.4	132
1N5366B	39.0	30.0	14	170	1.00	0.5	29.7	122
1N5367B	43.0	30.0	20	190	1.00	0.5	32.7	110
1N5368B	47.0	25.0	25	210	1.00	0.5	35.8	100
1N5369B	51.0	25.0	27	230	1.00	0.5	38.8	93
1N5370B	56.0	20.0	35	280	1.00	0.5	42.6	86
1N5371B	60.0	20.0	40	350	1.00	0.5	42.5	79
1N5372B	62.0	20.0	42	400	1.00	0.5	47.1	76
1N5373B	68.0	20.0	44	500	1.00	0.5	51.7	70
1N5374B	75.0	20.0	45	620	1.00	0.5	56.0	63
1N5375B	82.0	15.0	65	720	1.00	0.5	62.2	58
1N5376B	87.0	15.0	75	760	1.00	0.5	66.0	54.5
1N5377B	91.0	15.0	75	760	1.00	0.5	69.2	52.5
1N5378B	100.0	12.0	90	800	1.00	0.5	76.0	47.5

NOTES:

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed. superimposed on IZT per JEDEC Method