

SMB5333B-SMB5378B



ZENER 5W SERIES

SMB5333B - SMB5378B

V_Z :3.3 - 100 Volts

P_D : 5 Watt

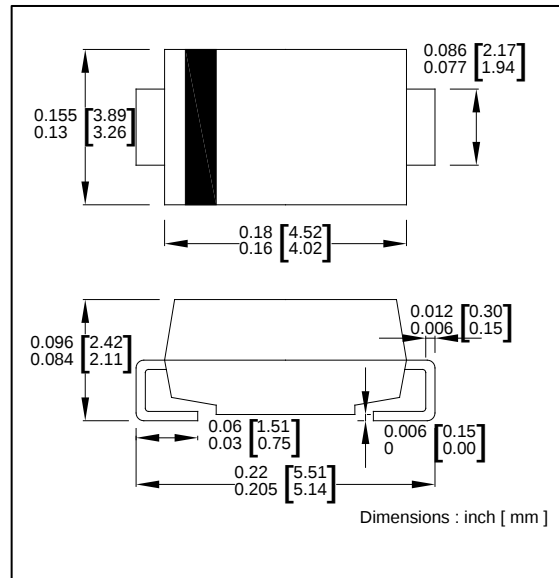
FEATURES

- 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

SMB /DO214AA



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 + 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 150	$^\circ\text{C}$

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)

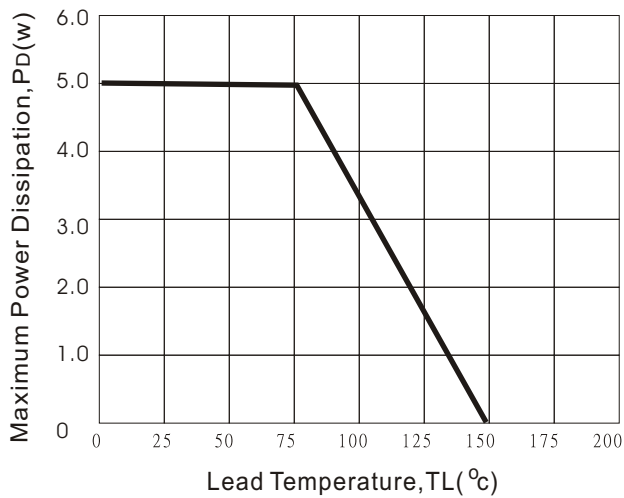


Fig1-Power Temperature Derating Curve

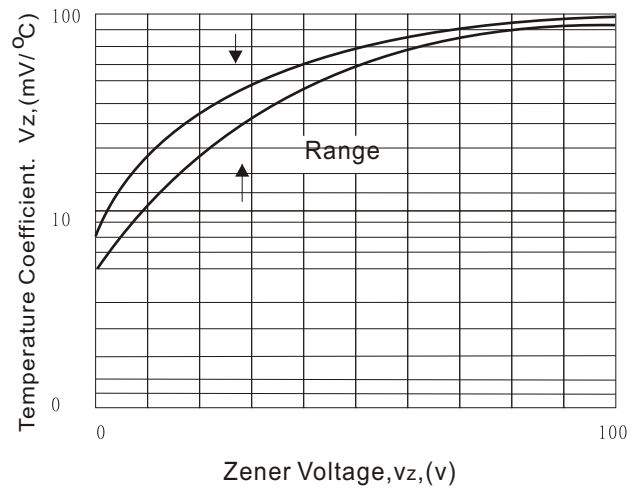


Fig.2- Temperature Coefficients v.s. Zener Voltage

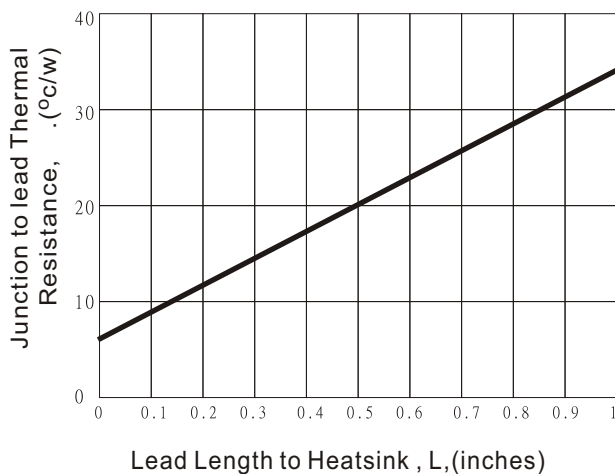
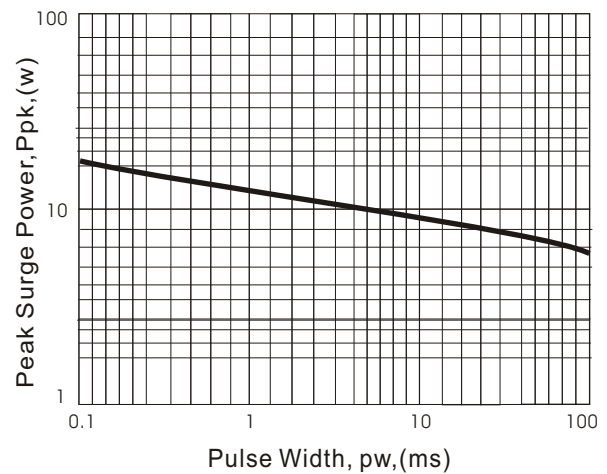


Fig.3 -Typical Thermal Resistance v.s Lead Length



Fig, 4 -Maximum Surge Power

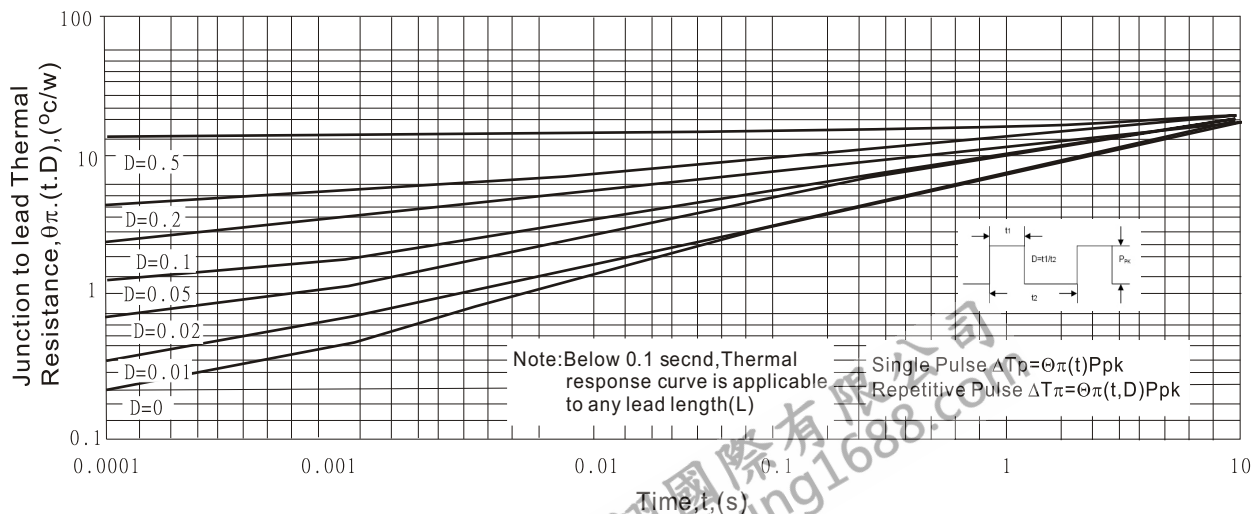


Fig.5 - Typical Thermal Response, Lead Length=3/8inch

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

GOODWORK ZENER 5W SERIES	DEVICE MARKING CODE	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)
SMB5333B	333B	3.3	380	3.0	400	1.00	300	1.0	1437
SMB5334B	334B	3.6	350	2.5	500	1.00	150	1.0	1317
SMB5335B	335B	3.9	320	2.0	500	1.00	50	1.0	1216
SMB5336B	336B	4.3	290	2.0	500	1.00	10.0	1.0	1103
SMB5337B	337B	4.7	260	2.0	450	1.00	5.0	1.0	1009
SMB5338B	338B	5.1	240	1.5	400	1.00	1.0	1.0	930
SMB5339B	339B	5.6	220	1.0	400	1.00	1.0	2.0	846
SMB5340B	340B	6.0	200	1.0	300	1.00	1.0	3.0	790
SMB5341B	341B	6.2	200	1.0	200	1.00	1.0	3.0	765
SMB5342B	342B	6.8	175.0	1.0	200	1.00	10.0	5.2	700
SMB5343B	343B	7.5	175.0	1.5	200	1.00	10.0	5.7	630
SMB5344B	344B	8.2	150.0	1.5	200	1.00	10.0	6.2	580
SMB5345B	345B	8.7	150.0	2.0	200	1.00	7.5	6.6	545
SMB5346B	346B	9.1	150.0	2.0	150	1.00	5.0	6.9	520
SMB5347B	347B	10.0	125.0	2.0	125	1.00	5.0	7.6	475
SMB5348B	348B	11.0	125.0	2.5	125	1.00	5.0	8.4	430
SMB5349B	349B	12.0	100.0	2.5	125	1.00	2.0	9.1	395
SMB5350B	350B	13.0	100.0	2.5	100	1.00	1.0	9.9	365
SMB5351B	351B	14.0	100.0	2.5	75	1.00	1.0	10.6	340
SMB5352B	352B	15.0	75.0	2.5	75	1.00	1.0	11.5	315
SMB5353B	353B	16.0	75.0	2.5	75	1.00	1.0	12.2	295
SMB5354B	354B	17.0	70.0	2.5	75	1.00	0.5	12.9	280
SMB5355B	355B	18.0	65.0	2.5	75	1.00	0.5	13.7	265
SMB5356B	356B	19.0	65.0	3	75	1.00	0.5	14.4	250
SMB5357B	357B	20.0	65.0	3	75	1.00	0.5	15.2	237
SMB5358B	358B	22.0	50.0	4	75	1.00	0.5	16.7	216
SMB5359B	359B	24.0	50.0	4	100	1.00	0.5	18.2	198
SMB5360B	360B	25.0	50.0	4	110	1.00	0.5	19.0	190
SMB5361B	361B	27.0	50.0	5	120	1.00	0.5	20.6	176
SMB5362B	362B	28.0	50.0	6	130	1.00	0.5	21.2	170
SMB5363B	363B	30.0	40.0	8	140	1.00	0.5	22.8	158
SMB5364B	364B	33.0	40.0	10	150	1.00	0.5	25.1	144
SMB5365B	365B	36.0	30.0	11	160	1.00	0.5	27.4	132
SMB5366B	366B	39.0	30.0	14	170	1.00	0.5	29.7	122
SMB5367B	367B	43.0	30.0	20	190	1.00	0.5	32.7	110
SMB5368B	368B	47.0	25.0	25	210	1.00	0.5	35.8	100
SMB5369B	369B	51.0	25.0	27	230	1.00	0.5	38.8	93
SMB5370B	370B	56.0	20.0	35	280	1.00	0.5	42.6	86
SMB5371B	371B	60.0	20.0	40	350	1.00	0.5	42.5	79
SMB5372B	372B	62.0	20.0	42	400	1.00	0.5	47.1	76
SMB5373B	373B	68.0	20.0	44	500	1.00	0.5	51.7	70
SMB5374B	374B	75.0	20.0	45	620	1.00	0.5	56.0	63
SMB5375B	375B	82.0	15.0	65	720	1.00	0.5	62.2	58
SMB5376B	376B	87.0	15.0	75	760	1.00	0.5	66.0	54.5
SMB5377B	377B	91.0	15.0	75	760	1.00	0.5	69.2	52.5
SMB5378B	378B	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