



SMB3EZ3.3D5 - SMB3EZ100D5

ZENER 3W SERIES

SMB3EZ3.3D5-SMB3EZ100D5

V_Z : 3.3 - 100 Volts

P_D : 3 Watt

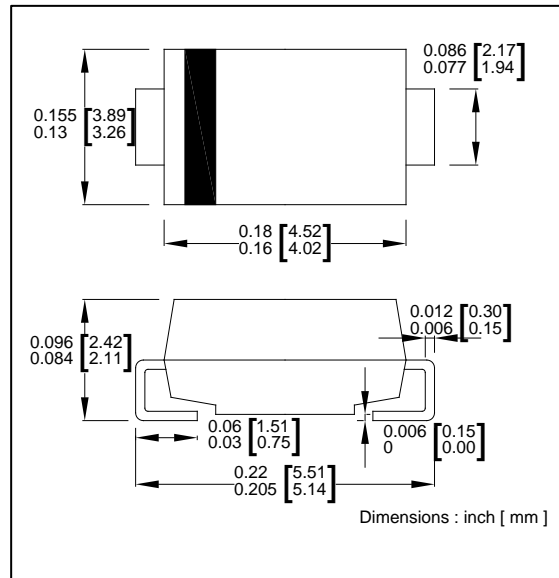
FEATURES

- 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 / DO-214AA



RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	Value	UNIT
DC Power Dissipation at $T_L = 50^\circ\text{C}$ (Note1)	P_D	3.0	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)

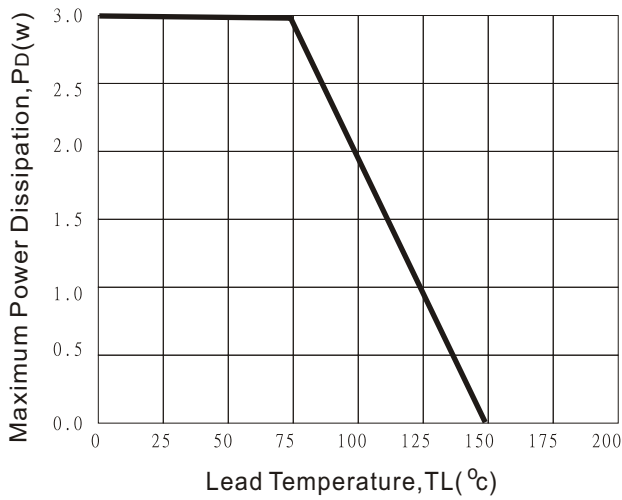


Fig1-Power Temperature Derating Curve

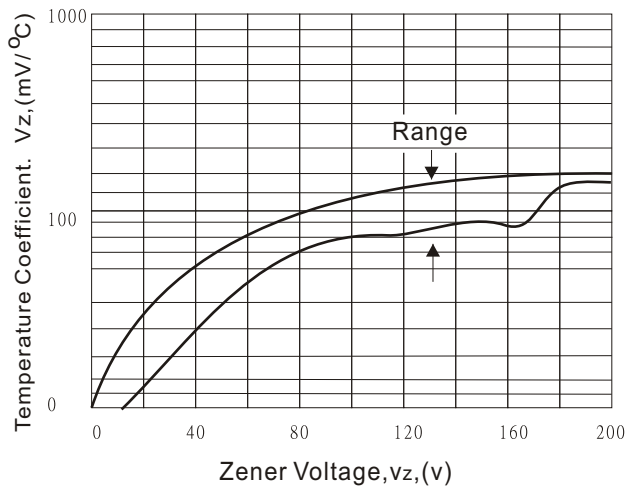


Fig.2- Temperature Coefficients v.s. Zener Voltage

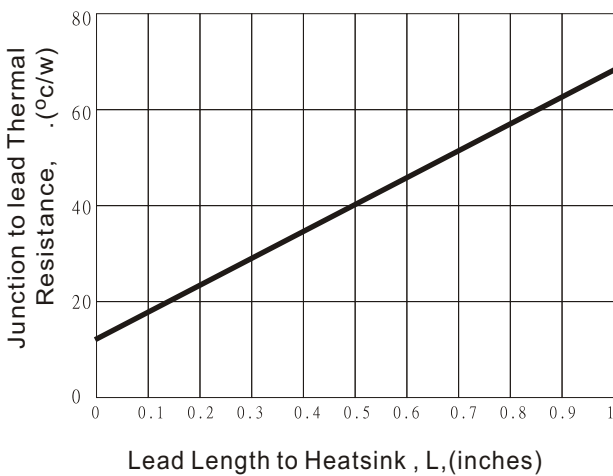


Fig.3 -Typical Thermal Resistance v.s Lead Length

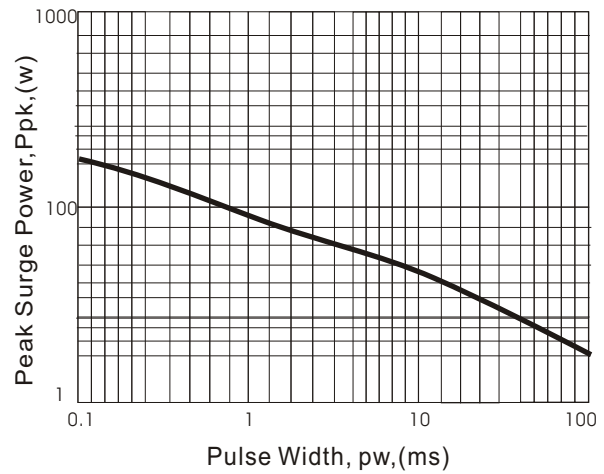


Fig. 4 -Maximum Surge Power

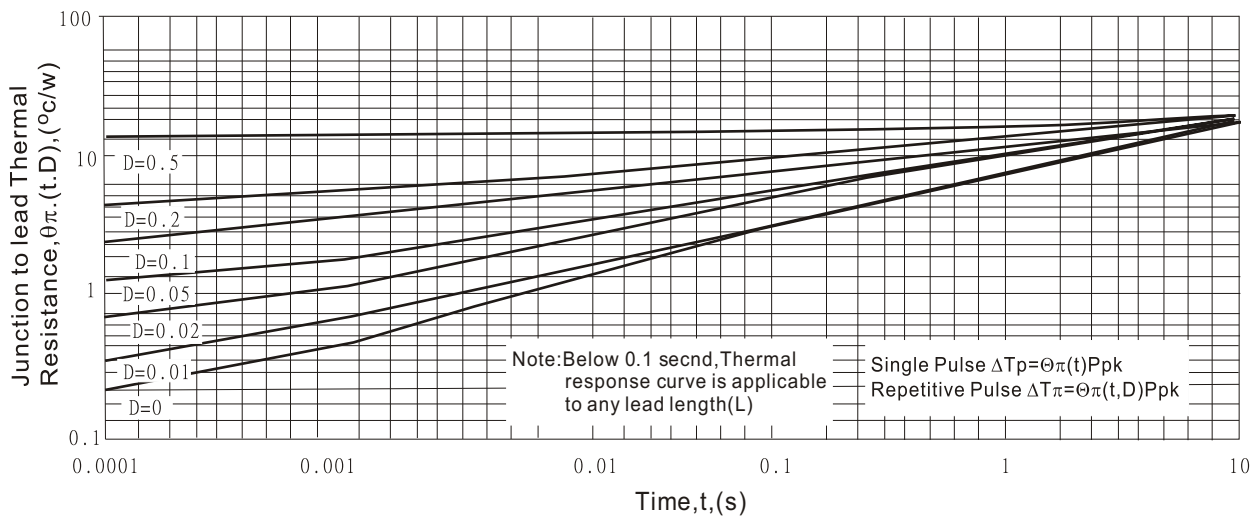


Fig.5 - Typical Thermal Response L, Lead Length=3/8inch



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

ZENER 3W 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)	(μA)	(V)	(mA)
SMB3EZ3.3D5	3H0	3.3	113.6	10.0	500	1.0	100.0	1.0	817
SMB3EZ3.6D5	3H1	3.6	104.2	9.0	500	1.0	75.0	1.0	749
SMB3EZ3.9D5	3H2	3.9	192.0	4.5	400	1.0	80.0	1.0	691
SMB3EZ4.3D5	3H3	4.3	174.0	4.5	400	1.0	30.0	1.0	627
SMB3EZ4.7D5	3H4	4.7	160.0	4.0	500	1.0	20.0	1.0	573
SMB3EZ5.1D5	3H5	5.1	147.0	3.5	550	1.0	5.0	1.0	528
SMB3EZ5.6D5	3H6	5.6	134.0	2.5	600	1.0	5.0	2.0	481
SMB3EZ6.2D5	3A0	6.2	121.0	1.5	700	1.0	5.0	3.0	435
SMB3EZ6.8D5	3A1	6.8	110.0	2.0	700	1.0	50.0	4.0	393
SMB3EZ7.5D5	3A2	7.5	100.0	2.0	700	0.5	50.0	5.0	360
SMB3EZ8.2D5	3A3	8.2	91.0	2.3	700	0.5	50.0	6.0	330
SMB3EZ9.1D5	3A4	9.1	82.0	2.5	700	0.5	50.0	7.0	297
SMB3EZ10D5	3A5	10	75.0	3.5	700	0.25	50.0	7.6	270
SMB3EZ11D5	3A6	11	68.0	4.0	700	0.25	50.0	8.4	225
SMB3EZ12D5	3A7	12	63.0	4.5	700	0.25	1.0	9.1	246
SMB3EZ13D5	3A8	13	58.0	4.5	700	0.25	0.5	9.9	208
SMB3EZ14D5	3A9	14	53.0	5.0	700	0.25	0.5	10.6	193
SMB3EZ15D5	3B0	15	50.0	5.5	700	0.25	0.5	11.4	180
SMB3EZ16D5	3B1	16	47.0	5.5	700	0.25	0.5	12.2	169
SMB3EZ17D5	3B2	17	44.0	6.0	750	0.25	0.5	13.0	159
SMB3EZ18D5	3B3	18	42.0	6.0	750	0.25	0.5	13.7	150
SMB3EZ19D5	3B4	19	40.0	7.0	750	0.25	0.5	14.4	142
SMB3EZ20D5	3B5	20	37.0	7.0	750	0.25	0.5	15.2	135
SMB3EZ22D5	3B6	22	34.0	8.0	750	0.25	0.5	16.7	123
SMB3EZ24D5	3B7	24	31.0	9.0	750	0.25	0.5	18.2	112
SMB3EZ27D5	3B8	27	28.0	10.0	750	0.25	0.5	20.6	100
SMB3EZ28D5	3B9	28	27.0	12.0	750	0.25	0.5	21.0	96
SMB3EZ30D5	3C0	30	25.0	16.0	750	0.25	0.5	22.5	90
SMB3EZ33D5	3C1	33	23.0	20.0	1000	0.25	0.5	25.1	82
SMB3EZ36D5	3C2	36	21.0	22.0	1000	0.25	0.5	27.4	75
SMB3EZ39D5	3C3	39	19.0	28.0	1000	0.25	0.5	29.7	69
SMB3EZ43D5	3C4	43	17.0	33.0	950	0.25	0.5	32.7	63
SMB3EZ47D5	3C5	47	16.0	38.0	1500	0.25	0.5	35.6	57
SMB3EZ51D5	3C6	51	15.0	45.0	1500	0.25	0.5	38.8	53
SMB3EZ56D5	3C7	56	13.0	50.0	2000	0.25	0.5	42.6	48
SMB3EZ62D5	3C8	62	12.0	55.0	2000	0.25	0.5	47.1	44
SMB3EZ68D5	3C9	68	11.0	70.0	2000	0.25	0.5	51.7	40
SMB3EZ75D5	3F0	75	10.0	85.0	2000	0.25	0.5	56.0	36
SMB3EZ82D5	3F1	82	9.1	95.0	3000	0.25	0.5	62.2	33
SMB3EZ91D5	3F2	91	8.2	115.0	3000	0.25	0.5	69.2	30
SMB3EZ100D5	3F3	100	7.5	160.0	3000	0.25	0.5	76.0	27

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