



SMA3EZ3.3D5 - SMA3EZ100D5

ZENER 3W SERIES

SMA3EZ3.3D5-SMA3EZ100D5

V_Z : 3.3 - 100 Volts

P_D : 3 Watt

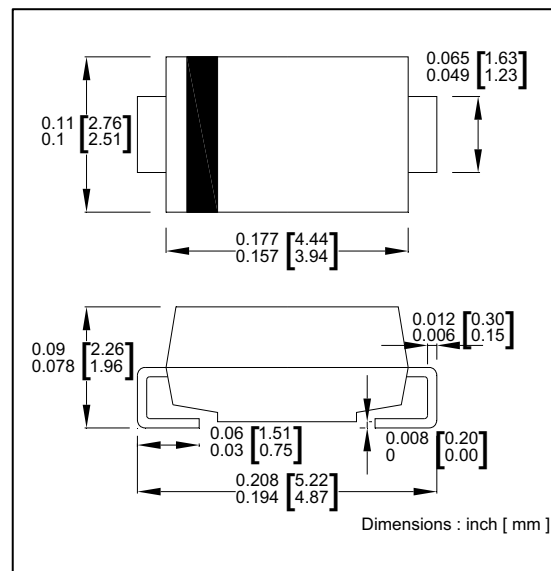
FEATURES

- 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

SMA / DO-214AC



RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	Value	UNIT
DC Power Dissipation at $T_L = 50\text{ °C}$ (Note1)	P_D	3.0	Watts
Peak pulse current with a 10/1000 μ s waveform	V_F	1.2	Volts
Junction Temperature Range	T_J	- 55 to + 175	°C
Storage Temperature Range	T_{STG}	- 55 to + 175	°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)

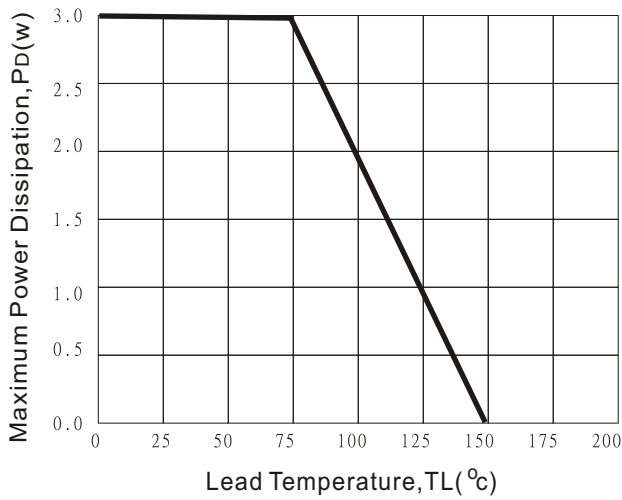


Fig1-Power Temperature Derating Curve

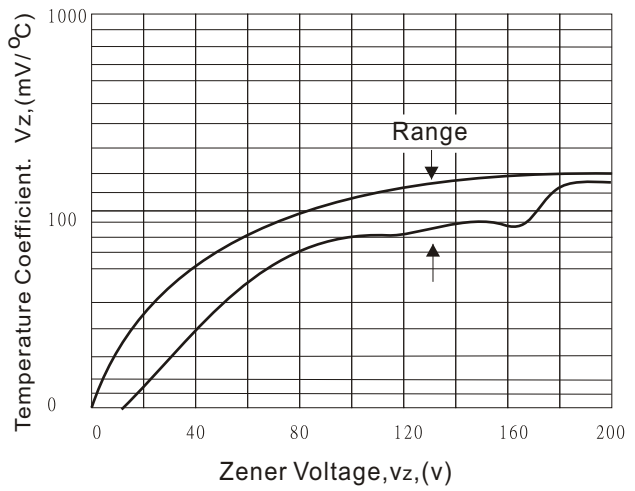


Fig.2- Temperature Coefficients v.s. Zener Voltage

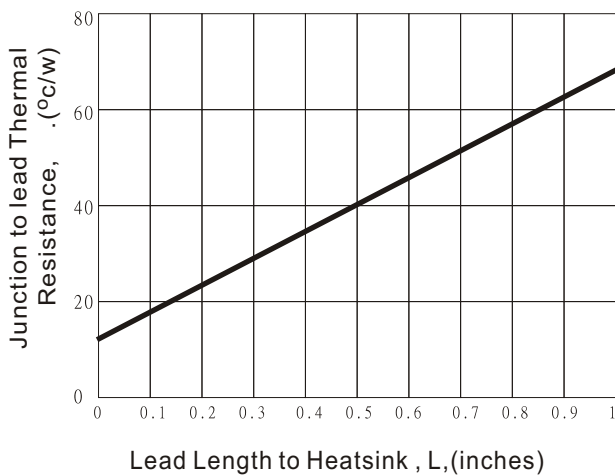


Fig.3 -Typical Thermal Resistance v.s Lead Length

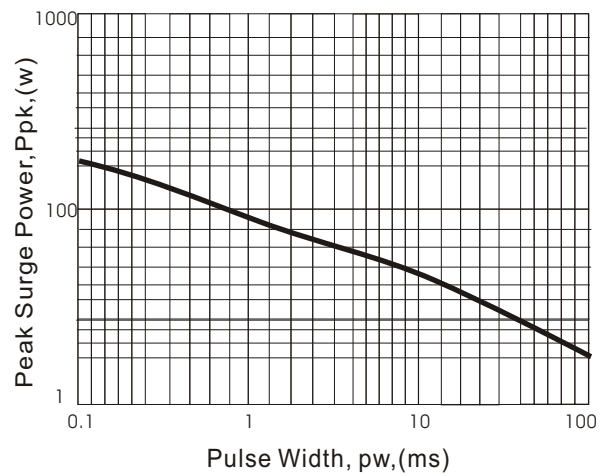


Fig. 4 -Maximum Surge Power

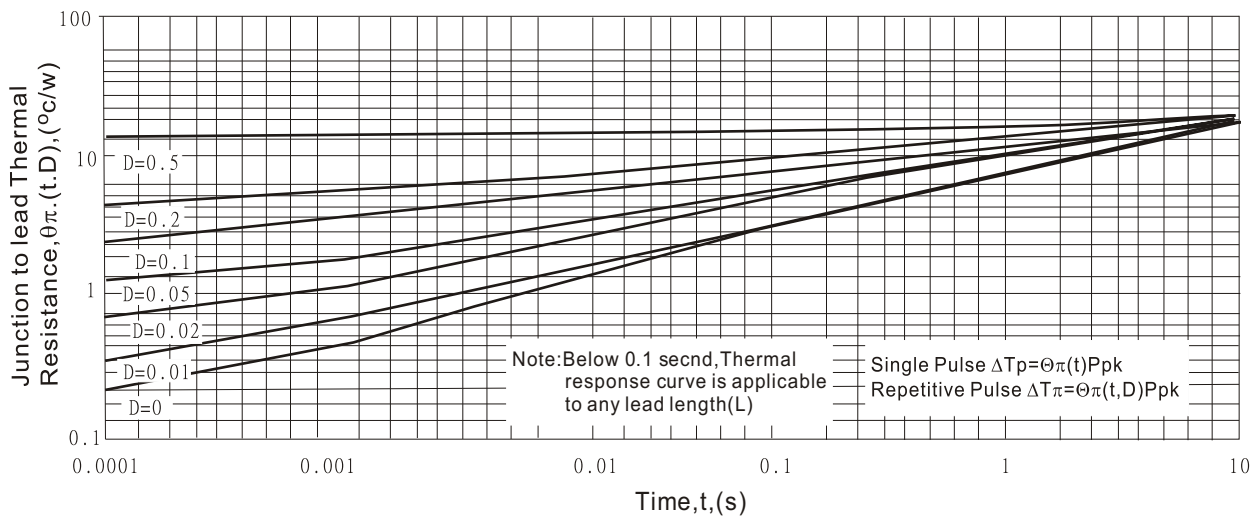


Fig.5 - Typical Thermal Response L, Lead Length=3/8inch



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)
SMA3EZ3.3D5	3H0	3.3	113.6	10.0	500	1.0	100.0	1.0	817
SMA3EZ3.6D5	3H1	3.6	104.2	9.0	500	1.0	75.0	1.0	749
SMA3EZ3.9D5	3H2	3.9	192.0	4.5	400	1.0	80.0	1.0	691
SMA3EZ4.3D5	3H3	4.3	174.0	4.5	400	1.0	30.0	1.0	627
SMA3EZ4.7D5	3H4	4.7	160.0	4.0	500	1.0	20.0	1.0	573
SMA3EZ5.1D5	3H5	5.1	147.0	3.5	550	1.0	5.0	1.0	528
SMA3EZ5.6D5	3H6	5.6	134.0	2.5	600	1.0	5.0	2.0	481
SMA3EZ6.2D5	3A0	6.2	121.0	1.5	700	1.0	5.0	3.0	435
SMA3EZ6.8D5	3A1	6.8	110.0	2.0	700	1.0	50.0	4.0	393
SMA3EZ7.5D5	3A2	7.5	100.0	2.0	700	0.5	50.0	5.0	360
SMA3EZ8.2D5	3A3	8.2	91.0	2.3	700	0.5	50.0	6.0	330
SMA3EZ9.1D5	3A4	9.1	82.0	2.5	700	0.5	50.0	7.0	297
SMA3EZ10D5	3A5	10	75.0	3.5	700	0.25	50.0	7.6	270
SMA3EZ11D5	3A6	11	68.0	4.0	700	0.25	50.0	8.4	225
SMA3EZ12D5	3A7	12	63.0	4.5	700	0.25	1.0	9.1	246
SMA3EZ13D5	3A8	13	58.0	4.5	700	0.25	0.5	9.9	208
SMA3EZ14D5	3A9	14	53.0	5.0	700	0.25	0.5	10.6	193
SMA3EZ15D5	3B0	15	50.0	5.5	700	0.25	0.5	11.4	180
SMA3EZ16D5	3B1	16	47.0	5.5	700	0.25	0.5	12.2	169
SMA3EZ17D5	3B2	17	44.0	6.0	750	0.25	0.5	13.0	159
SMA3EZ18D5	3B3	18	42.0	6.0	750	0.25	0.5	13.7	150
SMA3EZ19D5	3B4	19	40.0	7.0	750	0.25	0.5	14.4	142
SMA3EZ20D5	3B5	20	37.0	7.0	750	0.25	0.5	15.2	135
SMA3EZ22D5	3B6	22	34.0	8.0	750	0.25	0.5	16.7	123
SMA3EZ24D5	3B7	24	31.0	9.0	750	0.25	0.5	18.2	112
SMA3EZ27D5	3B8	27	28.0	10.0	750	0.25	0.5	20.6	100
SMA3EZ28D5	3B9	28	27.0	12.0	750	0.25	0.5	21.0	96
SMA3EZ30D5	3C0	30	25.0	16.0	750	0.25	0.5	22.5	90
SMA3EZ33D5	3C1	33	23.0	20.0	1000	0.25	0.5	25.1	82
SMA3EZ36D5	3C2	36	21.0	22.0	1000	0.25	0.5	27.4	75
SMA3EZ39D5	3C3	39	19.0	28.0	1000	0.25	0.5	29.7	69
SMA3EZ43D5	3C4	43	17.0	33.0	950	0.25	0.5	32.7	63
SMA3EZ47D5	3C5	47	16.0	38.0	1500	0.25	0.5	35.6	57
SMA3EZ51D5	3C6	51	15.0	45.0	1500	0.25	0.5	38.8	53
SMA3EZ56D5	3C7	56	13.0	50.0	2000	0.25	0.5	42.6	48
SMA3EZ62D5	3C8	62	12.0	55.0	2000	0.25	0.5	47.1	44
SMA3EZ68D5	3C9	68	11.0	70.0	2000	0.25	0.5	51.7	40
SMA3EZ75D5	3F0	75	10.0	85.0	2000	0.25	0.5	56.0	36
SMA3EZ82D5	3F1	82	9.1	95.0	3000	0.25	0.5	62.2	33
SMA3EZ91D5	3F2	91	8.2	115.0	3000	0.25	0.5	69.2	30
SMA3EZ100D5	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 ± 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