



2EZ2.7D5-2EZ100D5

ZENER 2W SERIES

2EZ2.7D5 - 2EZ100D5

V_Z : 2.7 - 100 Volts

P_D : 2 Watt

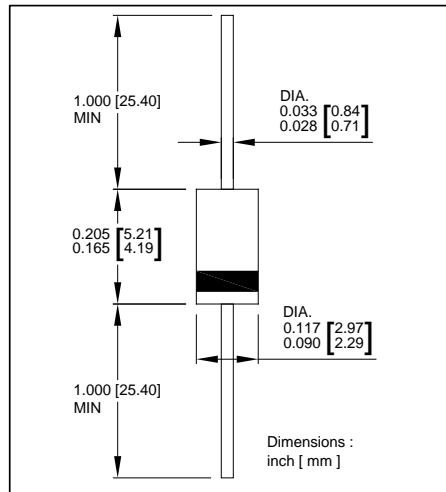
FEATURES

- 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-41



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	2.0	Watts
Peak pulse current with a 10/1000 μs waveform	V_F	1.5	Volts
Maximum Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	170	K/W
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.

(2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.



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

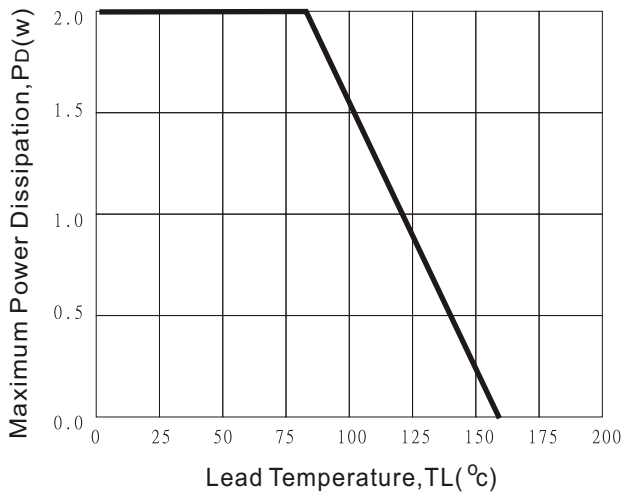


Fig1-Power Temperature Derating Curve

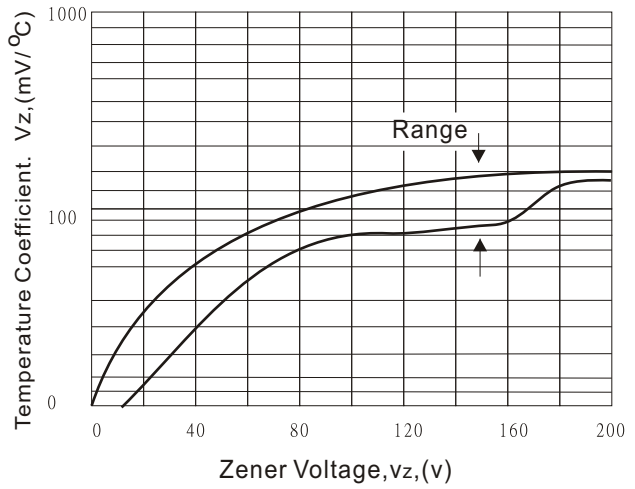


Fig.2- Temperature Coefficients v.s. Zener Voltage

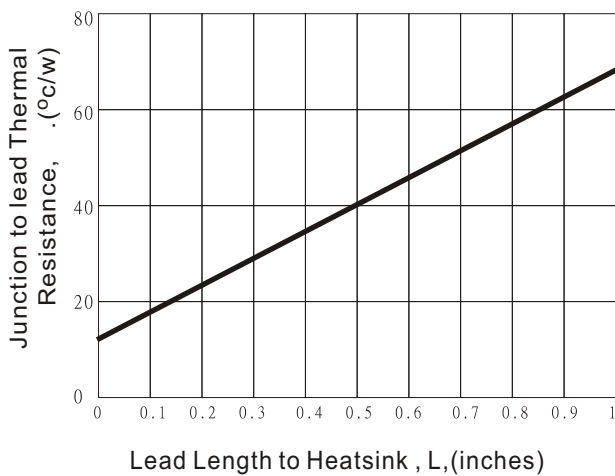


Fig.3 -Typical Thermal Resistance v.s Lead Length

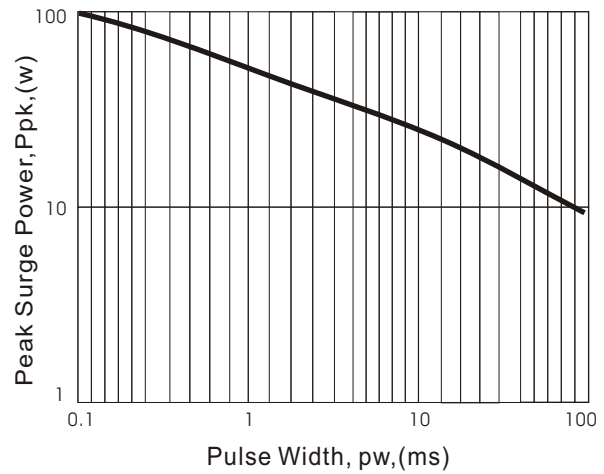


Fig. 4 -Maximum Surge Power

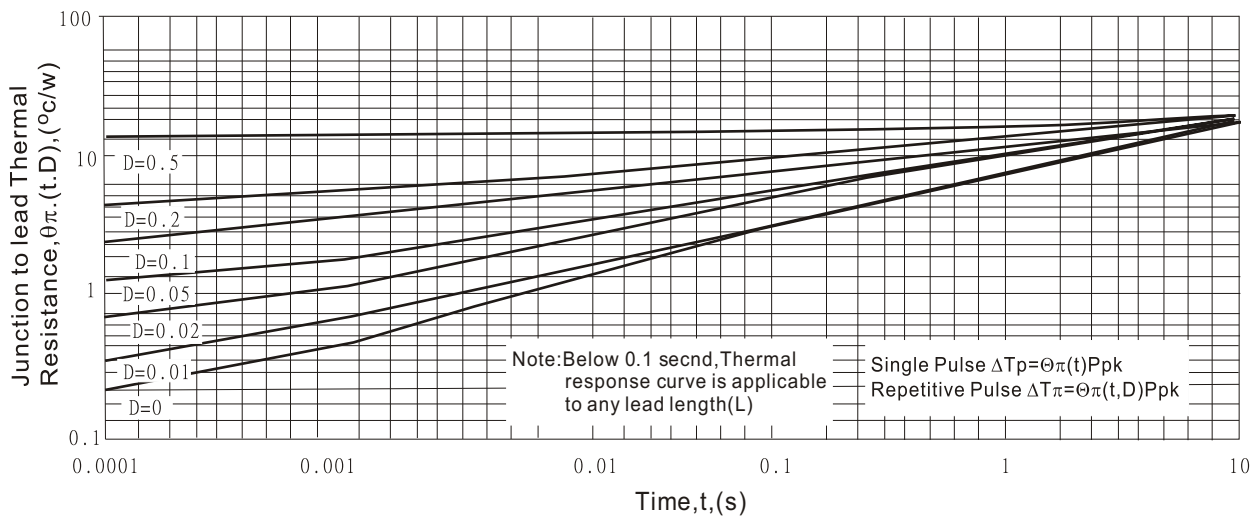


Fig.5 - Typical Thermal Response L, Lead Length=3/8inch



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

ZENER 2W SERIES	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakags Current		MAX.DC CURREN T IZM
	Vz @IzT	IzT	ZzT @ IzT	Zzk @ Izk	Izk	IR @ VR		IzM
	Volts	m A	Ohms	Ohms	m A	uA	Volts	mA
2EZ2.7D5	2.7	80.0	10	400	1.0	100	1.0	670.0
2EZ3.0D5	3	160.0	8.0	400	1.0	100	1.0	603
2EZ3.3D5	3.3	145.0	8.0	400	1.0	80	1.0	548
2EZ3.6D5	3.6	139.0	5.0	400	1.0	80	1.0	502
2EZ3.9D5	3.9	128.0	5.0	400	1.0	30	1.0	464
2EZ4.3D5	4.3	116.0	4.5	400	1.0	20	1.0	421
2EZ4.7D5	4.7	106.0	4.5	550	1.0	5.0	1.0	385
2EZ5.1D5	5.1	98.0	3.5	600	1.0	5.0	1.0	354
2EZ5.6D5	5.6	89.5	2.5	500	1.0	5.0	2.0	323
2EZ6.2D5	6.2	80.5	1.5	700	1.0	5.0	3.0	292
2EZ6.8D5	6.8	73.5	2.0	700	1.0	5.0	4.0	266
2EZ7.5D5	7.5	66.5	2.0	700	0.5	5.0	5.0	242
2EZ8.2D5	8.2	61.0	2.3	700	0.5	5.0	6.0	220
2EZ9.1D5	9.1	55.0	2.5	700	0.5	3.0	7.0	200
2EZ10D5	10	50.0	3.5	700	0.25	3.0	7.6	182
2EZ11D5	11	45.5	4.0	700	0.25	1.0	8.4	166
2ZE12D5	12	41.5	4.5	700	0.25	1.0	9.1	152
2EZ13D5	13	38.5	5.0	700	0.25	0.5	9.9	138
2EZ14D5	14	35.7	5.5	700	0.25	0.5	10.6	130
2EZ15D5	15	33.4	7.0	700	0.25	0.5	11.4	122
2EZ16D5	16	31.2	8.0	700	0.25	0.5	12.2	114
2EZ17D5	17	29.4	9.0	750	0.25	0.5	13.0	107
2EZ18D5	18	27.8	10.0	750	0.25	0.5	13.7	100
2EZ19D5	19	26.3	11.0	750	0.25	0.5	14.4	95
2EZ20D5	20	25.0	11.0	750	0.25	0.5	15.2	90
2EZ22D5	22	22.8	12.0	750	0.25	0.5	16.7	82
2EZ24D5	24	20.8	13.0	750	0.25	0.5	18.2	76
2EZ27D5	27	18.5	18.0	750	0.25	0.5	20.6	68
2EZ30D5	30	16.6	20.0	1000	0.25	0.5	22.5	60
2EZ33D5	33	15.1	23.0	1000	0.25	0.5	25.1	55
2EZ36D5	36	13.9	25.0	1000	0.25	0.5	27.4	50
2EZ39D5	39	12.8	30.0	1000	0.25	0.5	29.7	47
2EZ43D5	43	11.6	35.0	1500	0.25	0.5	32.7	43
2EZ47D5	47	10.6	40.0	1500	0.25	0.5	35.8	39
2EZ51D5	51	9.8	48.0	1500	0.25	0.5	38.8	36
2EZ56D5	56	9.0	55.0	2000	0.25	0.5	42.6	32
2EZ62D5	62	8.1	60.0	2000	0.25	0.5	47.1	29
2EZ68D5	68	7.4	75.0	2000	0.25	0.5	51.7	27
2EZ75D5	75	6.7	90.0	2000	0.25	0.5	56.0	24
2EZ82D5	82	6.1	100.0	3000	0.25	0.5	62.2	22
2EZ91D5	91	5.5	125.0	3000	0.25	0.5	69.2	20
2EZ100D5	100	5.0	175.0	300	0.25	0.5	76.0	18

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 on IZT per JEDEC Method