



V_Z : 5.6 to 330 V
 P_D : 2 W

Axial Lead
Zener Diodes

DO-15

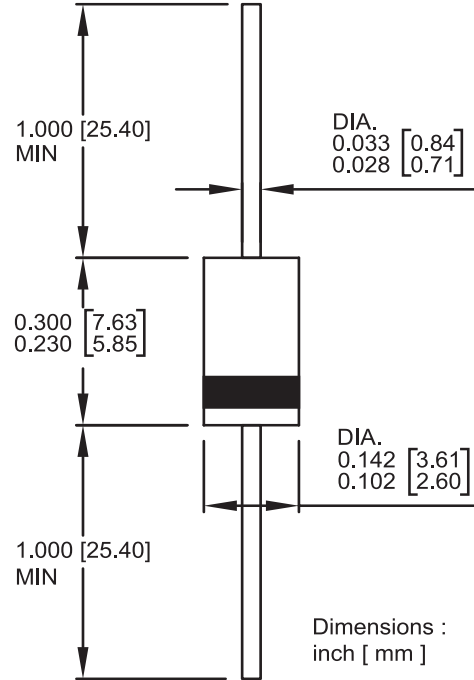
Zener
2W Axial

Features

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- For use in stabilizing and clipping circuits with high power rating
- RoHS compliant

Mechanical Data

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



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

Parameter	Symbol	Value	Unit
DC power dissipation at $T_L = 75^\circ\text{C}^{(1)}$	P_D	2	W
Maximum forward voltage at $I_F = 200\text{ mA}$	V_F	1.5	V
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)

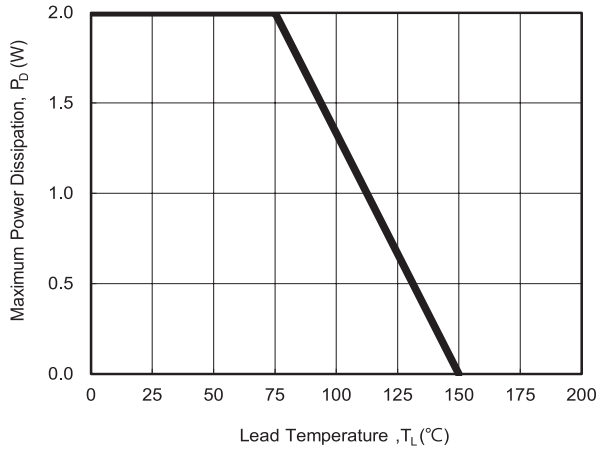


Fig. 1 - Power Temperature Derating Curve

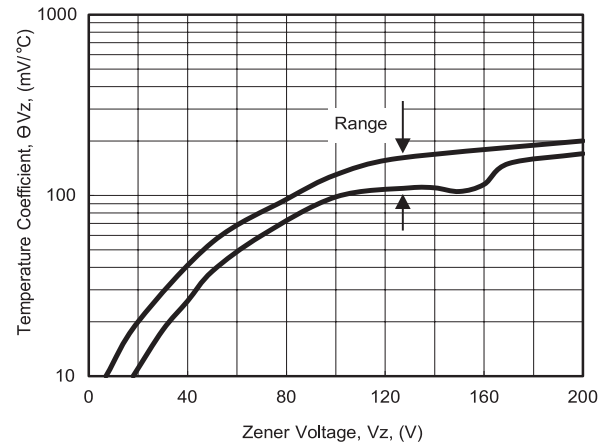


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

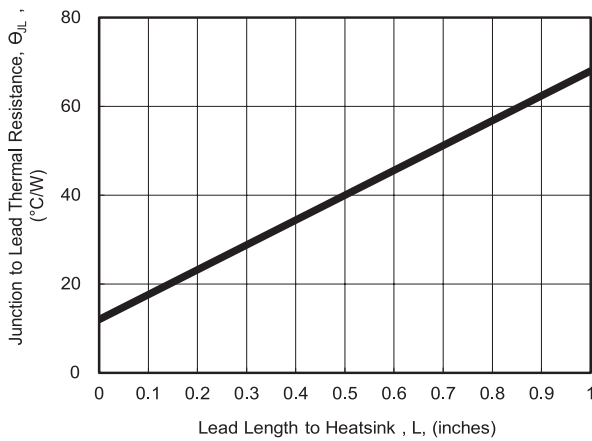


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

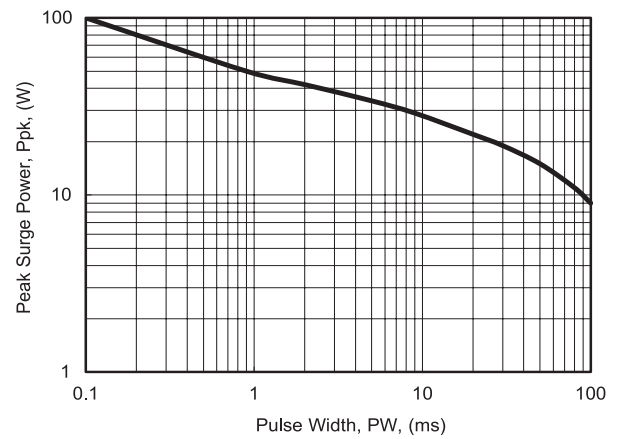


Fig. 4 - Maximum Surge Power

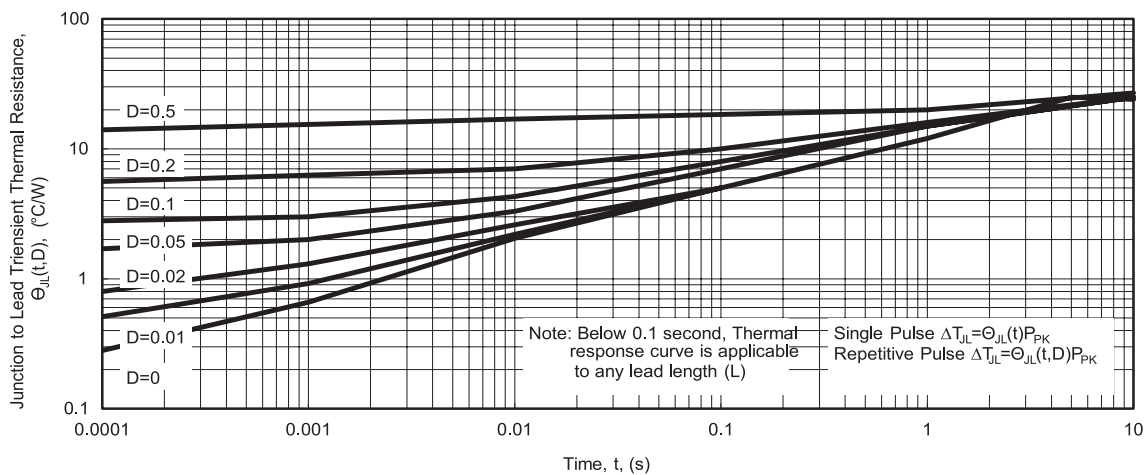


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch



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

Part Number	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$		I_{ZM}
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
2EZ5.6D5	5.6	89.5	2.5	500	1.00	5.0	2.0	323.0
2EZ6.2D5	6.2	80.5	1.5	700	1.00	5.0	3.0	292.0
2EZ6.8D5	6.8	73.5	2.0	700	1.00	5.0	4.0	266.0
2EZ7.5D5	7.5	66.5	2.0	700	0.50	5.0	5.0	242.0
2EZ8.2D5	8.2	61.0	2.3	700	0.50	5.0	6.0	220.0
2EZ9.1D5	9.1	55.0	2.5	700	0.50	3.0	7.0	200.0
2EZ10D5	10.0	50.0	3.5	700	0.25	3.0	7.6	182.0
2EZ11D5	11.0	45.5	4.0	700	0.25	1.0	8.4	166.0
2EZ12D5	12.0	41.5	4.5	700	0.25	1.0	9.1	152.0
2EZ13D5	13.0	38.5	5.0	700	0.25	0.5	9.9	138.0
2EZ14D5	14.0	35.7	5.5	700	0.25	0.5	10.6	130.0
2EZ15D5	15.0	33.4	7.0	700	0.25	0.5	11.4	122.0
2EZ16D5	16.0	31.2	8.0	700	0.25	0.5	12.2	114.0
2EZ17D5	17.0	29.4	9.0	750	0.25	0.5	13.0	107.0
2EZ18D5	18.0	27.8	10.0	750	0.25	0.5	13.7	100.0
2EZ19D5	19.0	26.3	11.0	750	0.25	0.5	14.4	95.0
2EZ20D5	20.0	25.0	11.0	750	0.25	0.5	15.2	90.0
2EZ22D5	22.0	22.8	12.0	750	0.25	0.5	16.7	82.0
2EZ24D5	24.0	20.8	13.0	750	0.25	0.5	18.2	76.0
2EZ27D5	27.0	18.5	18.0	750	0.25	0.5	20.6	68.0
2EZ30D5	30.0	16.6	20.0	1000	0.25	0.5	22.5	60.0
2EZ33D5	33.0	15.1	23.0	1000	0.25	0.5	25.1	55.0
2EZ36D5	36.0	13.9	25.0	1000	0.25	0.5	27.4	50.0
2EZ39D5	39.0	12.8	30.0	1000	0.25	0.5	29.7	47.0
2EZ43D5	43.0	11.6	35.0	1500	0.25	0.5	32.7	43.0
2EZ47D5	47.0	10.6	40.0	1500	0.25	0.5	35.8	39.0
2EZ51D5	51.0	9.8	48.0	1500	0.25	0.5	38.8	36.0
2EZ56D5	56.0	9.0	55.0	2000	0.25	0.5	42.6	32.0
2EZ62D5	62.0	8.1	60.0	2000	0.25	0.5	47.1	29.0
2EZ68D5	68.0	7.4	75.0	2000	0.25	0.5	51.7	27.0
2EZ75D5	75.0	6.7	90.0	2000	0.25	0.5	56.0	24.0
2EZ82D5	82.0	6.1	100.0	3000	0.25	0.5	62.2	22.0
2EZ91D5	91.0	5.5	125.0	3000	0.25	0.5	69.2	20.0
2EZ100D5	100.0	5.0	175.0	3000	0.25	0.5	76.0	18.0
2EZ110D5	110.0	4.5	250.0	4000	0.25	0.5	83.6	17.0
2EZ120D5	120.0	4.2	325.0	4500	0.25	0.5	91.2	15.0
2EZ130D5	130.0	3.8	400.0	5000	0.25	0.5	98.8	14.0
2EZ140D5	140.0	3.6	500.0	5500	0.25	0.5	106.4	13.0
2EZ150D5	150.0	3.3	575.0	6000	0.25	0.5	114.0	12.0
2EZ160D5	160.0	3.1	650.0	6500	0.25	0.5	121.6	11.0
2EZ170D5	170.0	2.9	675.0	7000	0.25	0.5	130.4	11.0
2EZ180D5	180.0	2.8	725.0	7000	0.25	0.5	136.8	10.0
2EZ190D5	190.0	2.6	825.0	8000	0.25	0.5	144.8	10.0
2EZ200D5	200.0	2.5	1900.0	9990	0.25	0.5	152.0	9.0
2EZ220D5	220.0	2.0	2000.0	8500	0.25	0.5	167.0	8.0
2EZ270D5	270.0	1.6	2200.0	8500	0.25	0.5	205.0	6.7
2EZ300D5	300.0	1.5	2200.0	9000	0.25	0.5	228.0	5.9
2EZ330D5	330.0	1.4	2300.0	9000	0.25	0.5	250.0	5.4

Zener
2W Axial

Note:

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 I_{ZT} per JEDEC Method