



V_Z : 5.6 to 200 V
 P_D : 3 W

Axial Lead
Zener Diodes

DO-15

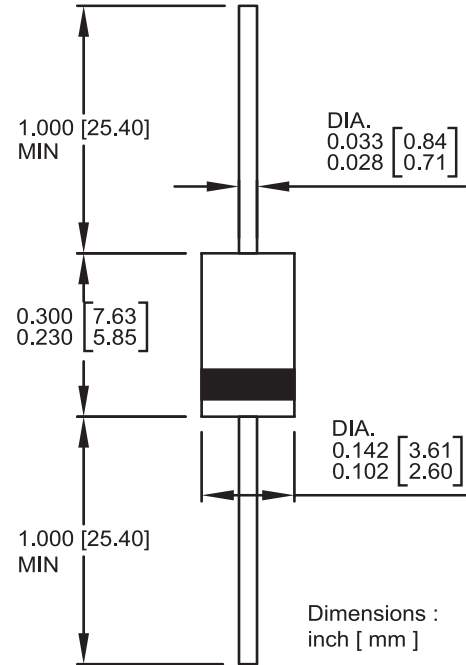
Zener
3W Axial

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	3	W
Maximum forward voltage at $I_F = 200\text{ mA}$	V_F	1.5	V
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)

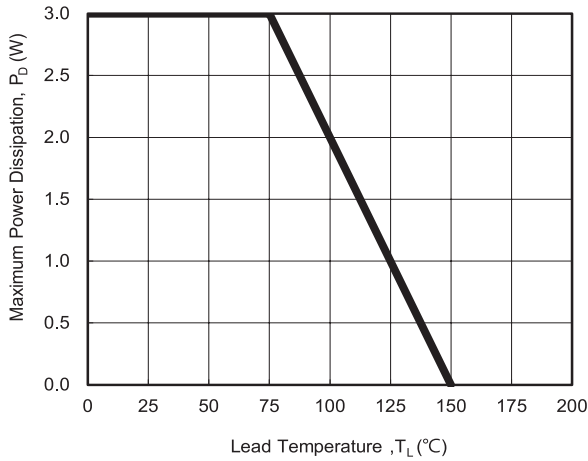


Fig. 1 - Power Temperature Derating Curve

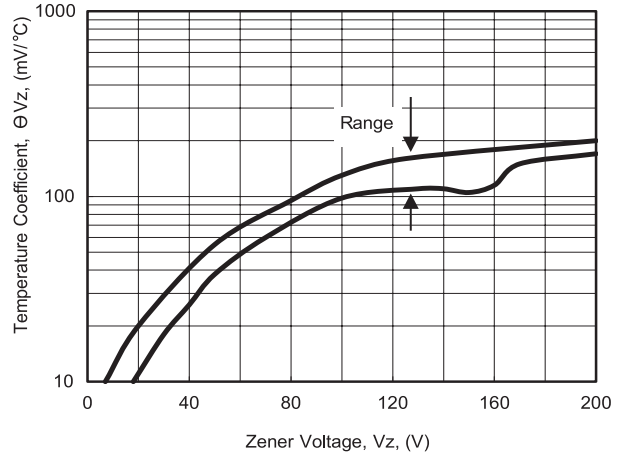


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

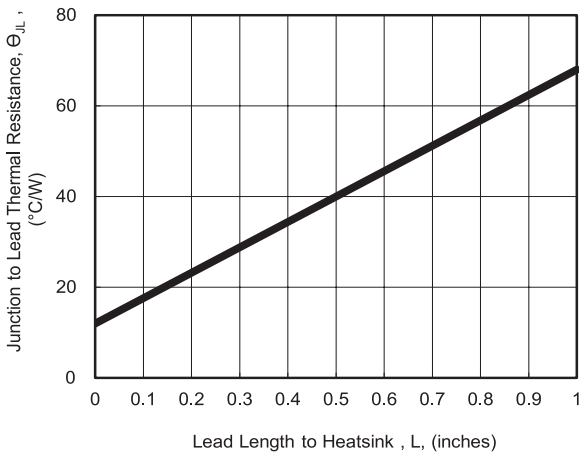


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

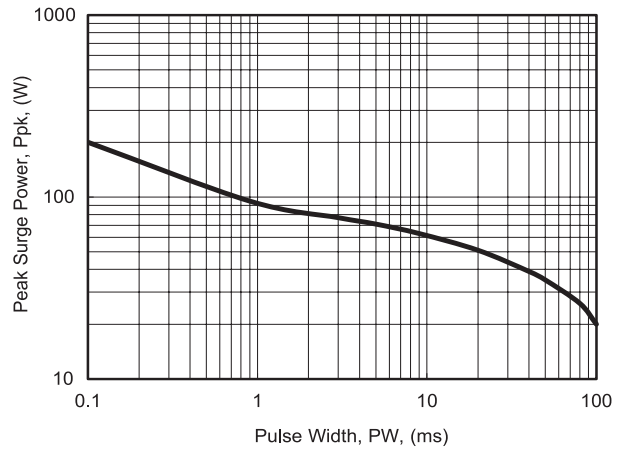


Fig. 4 - Maximum Surge Power

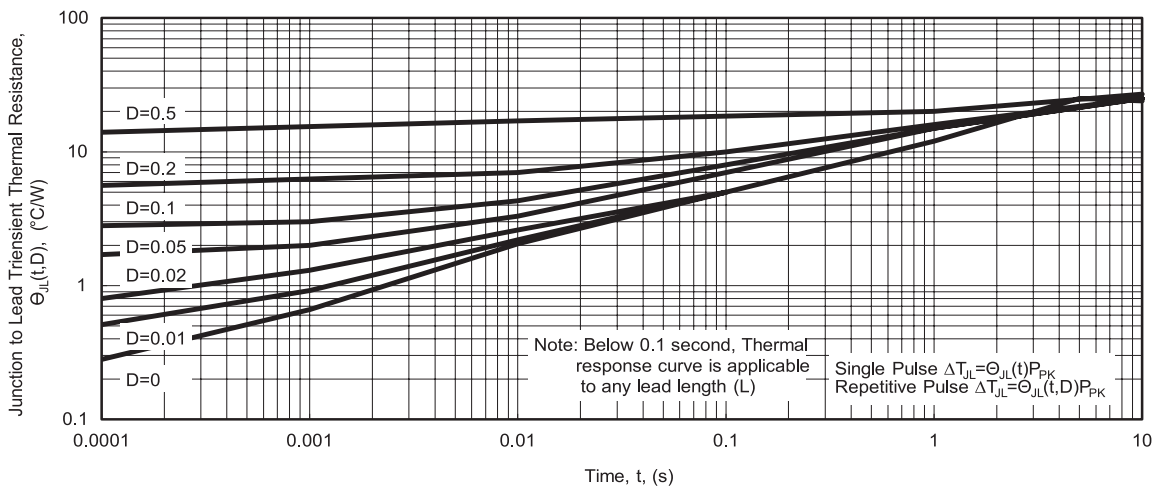


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch



Electrical Characteristics($T_A=25^{\circ}C$ 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)
3EZ5.6D5	5.6	134.0	2.5	600	1.00	5.0	2.0	481
3EZ6.2D5	6.2	121.0	1.5	700	1.00	5.0	3.0	435
3EZ6.8D5	6.8	110.0	2.0	700	1.00	5.0	4.0	393
3EZ7.5D5	7.5	100.0	2.0	700	0.50	5.0	5.0	360
3EZ8.2D5	8.2	91.0	2.3	700	0.50	5.0	6.0	330
3EZ9.1D5	9.1	82.0	2.5	700	0.50	3.0	7.0	297
3EZ10D5	10.0	75.0	3.5	700	0.25	3.0	7.6	270
3EZ11D5	11.0	68.0	4.0	700	0.25	1.0	8.4	225
3EZ12D5	12.0	63.0	4.5	700	0.25	1.0	9.1	246
3EZ13D5	13.0	58.0	4.5	700	0.25	0.5	9.9	208
3EZ14D5	14.0	53.0	5.0	700	0.25	0.5	10.6	193
3EZ15D5	15.0	50.0	5.5	700	0.25	0.5	11.4	180
3EZ16D5	16.0	47.0	5.5	700	0.25	0.5	12.2	169
3EZ17D5	17.0	44.0	6.0	750	0.25	0.5	13.0	159
3EZ18D5	18.0	42.0	6.0	750	0.25	0.5	13.7	150
3EZ19D5	19.0	40.0	7.0	750	0.25	0.5	14.4	142
3EZ20D5	20.0	37.0	7.0	750	0.25	0.5	15.2	135
3EZ22D5	22.0	34.0	8.0	750	0.25	0.5	16.7	123
3EZ24D5	24.0	31.0	9.0	750	0.25	0.5	18.2	112
3EZ27D5	27.0	28.0	10.0	750	0.25	0.5	20.6	100
3EZ28D5	28.0	27.0	12.0	750	0.25	0.5	21.0	96
3EZ30D5	30.0	25.0	16.0	1000	0.25	0.5	22.5	90
3EZ33D5	33.0	23.0	20.0	1000	0.25	0.5	25.1	82
3EZ36D5	36.0	21.0	22.0	1000	0.25	0.5	27.4	75
3EZ39D5	39.0	19.0	28.0	1000	0.25	0.5	29.7	69
3EZ43D5	43.0	17.0	33.0	1500	0.25	0.5	32.7	63
3EZ47D5	47.0	16.0	38.0	1500	0.25	0.5	35.6	57
3EZ51D5	51.0	15.0	45.0	1500	0.25	0.5	38.8	53
3EZ56D5	56.0	13.0	50.0	2000	0.25	0.5	42.6	48
3EZ62D5	62.0	12.0	55.0	2000	0.25	0.5	47.1	44
3EZ68D5	68.0	11.0	70.0	2000	0.25	0.5	51.7	40
3EZ75D5	75.0	10.0	85.0	2000	0.25	0.5	56.0	36
3EZ82D5	82.0	9.1	95.0	3000	0.25	0.5	62.2	33
3EZ91D5	91.0	8.2	115.0	3000	0.25	0.5	69.2	30
3EZ100D5	100.0	7.5	160.0	3000	0.25	0.5	76.0	27
3EZ110D5	110.0	6.8	225.0	4000	0.25	0.5	83.6	25
3EZ120D5	120.0	6.3	300.0	4500	0.25	0.5	91.2	22
3EZ130D5	130.0	5.8	375.0	5000	0.25	0.5	98.8	21
3EZ140D5	140.0	5.3	475.0	5000	0.25	0.5	106.4	19
3EZ150D5	150.0	5.0	550.0	6000	0.25	0.5	114.0	18
3EZ160D5	160.0	4.7	625.0	6500	0.25	0.5	121.6	17
3EZ170D5	170.0	4.4	650.0	7000	0.25	0.5	130.4	16
3EZ180D5	180.0	4.2	700.0	7000	0.25	0.5	136.8	15
3EZ190D5	190.0	4.0	800.0	8000	0.25	0.5	144.8	14
3EZ200D5	200.0	3.7	875.0	8000	0.25	0.5	152.0	13

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