

Axial Zener Diodes

Reverse Voltage - 3.3 to 200 V

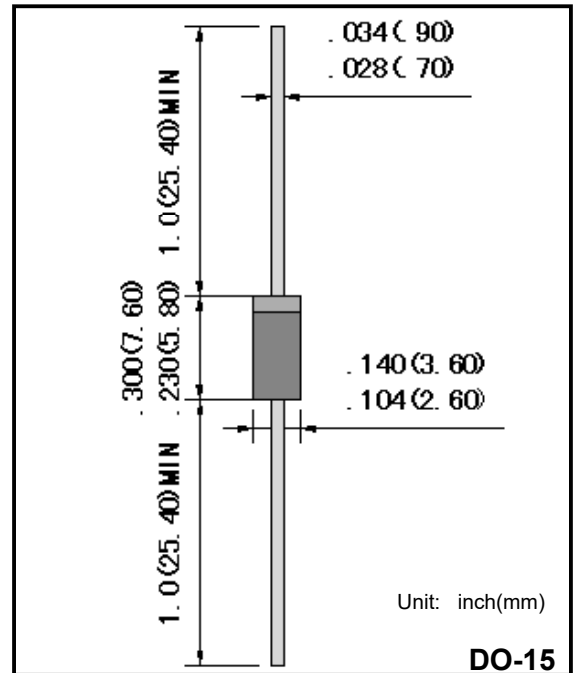
3 Watt Power Dissipation

FEATURES

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

MECHANICAL DATA

- ◆ Case: DO-15 Molded plastic
- ◆ Lead: Solderable per MIL-STD-750, method 2026
- ◆ Epoxy: UL 94V-0 rate flame retardant
- ◆ Polarity: Color band denotes cathode end
- ◆ Mounting position: Any



Parameter	Symbols	Value	Unit
DC Power dissipation at TL = 75 °C ⁽¹⁾	P _D	3.0	W
Maximum forward voltage at if=200mA	V _F	1.2	V
Junction temperature range	T _J , T _{STG}	-55 to +150	°C
Storage temperature range	T _J , T _{STG}	-55 to +150	°C

Note : (1) T_L=Lead temperature at 3/8" (9.5mm)from body

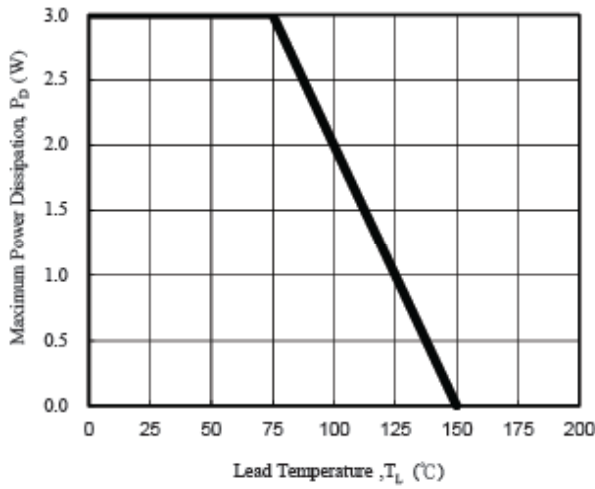


Fig. 1 - Power Temperature Derating Curve

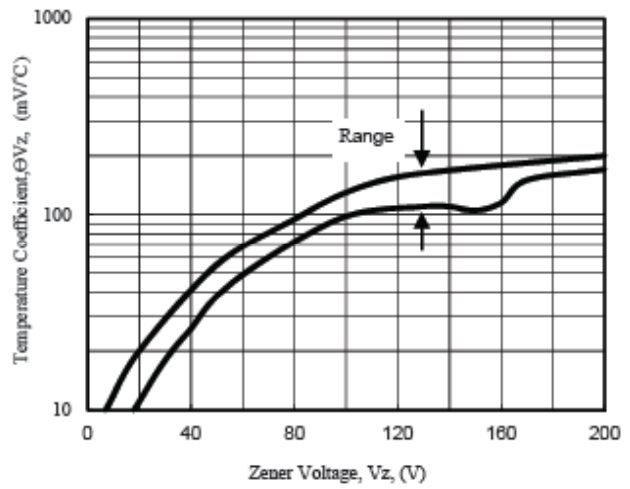


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

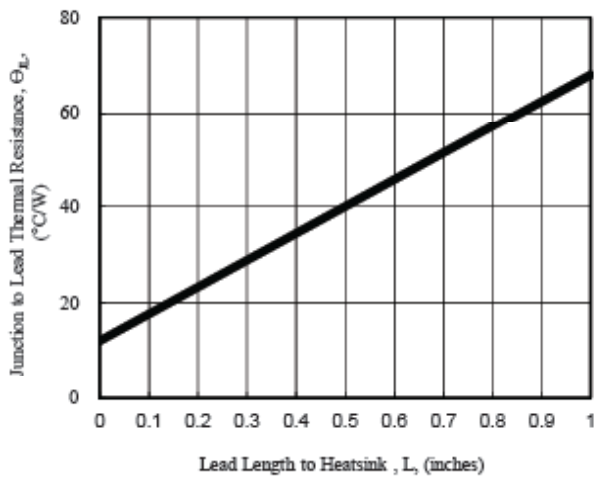


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

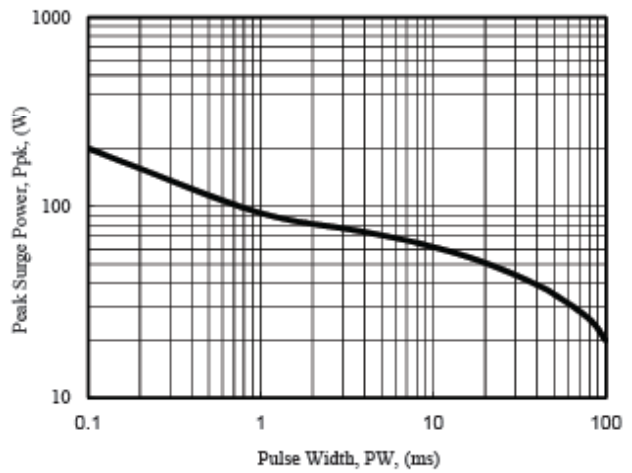


Fig. 4 - Maximum Surge Power

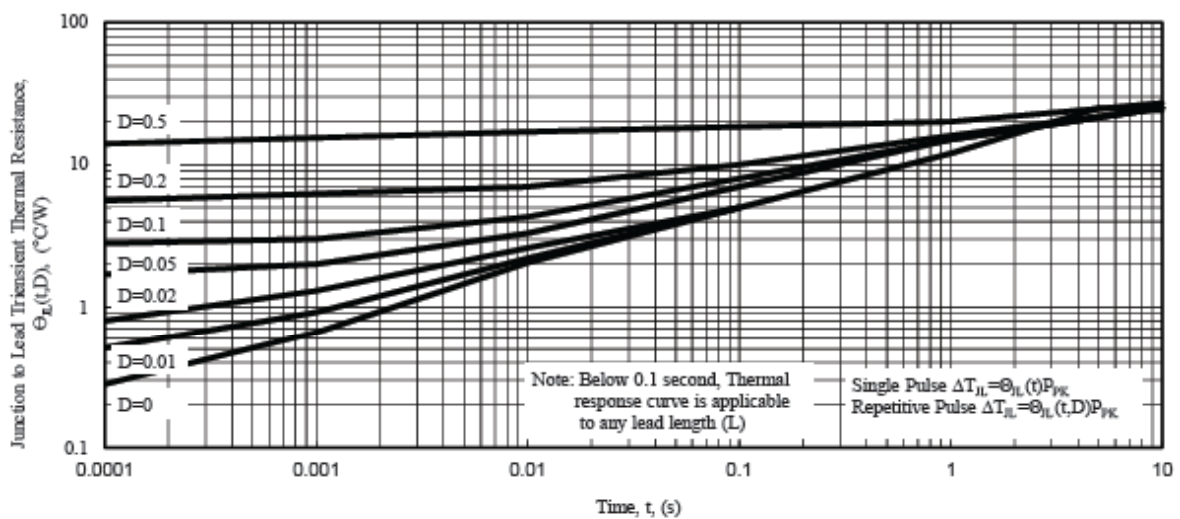
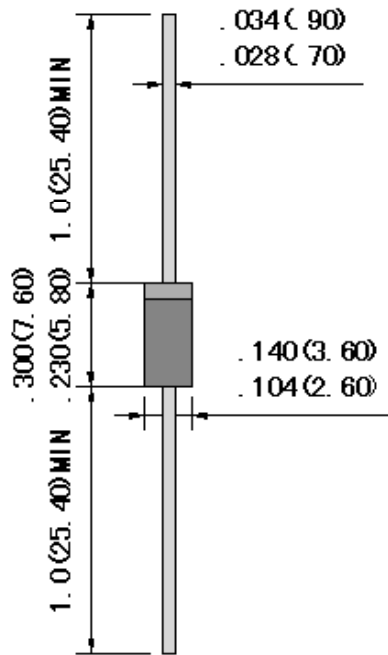


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

Part Number	Nominal Zener Voltage @I _T			I _{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	V _{Z AVE.} (V)	V _{Z MIN.} (V)	V _{Z MAX.} (V)		Z _{ZT MAX.} (Ω) @I _{ZT}	Z _{ZK MAX.} (Ω) @I _{ZK}	I _{ZK} (mA)	I _R (μA)@V _R	V _R (V)	
3EZ3.3AD5	3.3	3.14	3.47	227.3	10.0	500.0	1.00	100.0	1.0	817.0
3EZ3.6AD5	3.6	3.42	3.78	208.3	9.0	500.0	1.00	75.0	1.0	749.0
3EZ3.9AD5	3.9	3.71	4.10	192.0	4.5	400.0	1.00	80.0	1.0	691.0
3EZ4.3AD5	4.3	4.09	4.52	174.0	4.5	400.0	1.00	30.0	1.0	627.0
3EZ4.7AD5	4.7	4.47	4.94	160.0	4.0	500.0	1.00	20.0	1.0	573.0
3EZ5.1AD5	5.1	4.85	5.36	147.0	3.5	550.0	1.00	5.0	1.0	528.0
3EZ5.6AD5	5.6	5.32	5.88	134.0	2.5	600.0	1.00	5.0	2.0	481.0
3EZ6.2AD5	6.2	5.89	6.51	121.0	1.5	700.0	1.00	5.0	3.0	435.0
3EZ6.8AD5	6.8	6.46	7.14	110.0	2.0	700.0	1.00	5.0	4.0	393.0
3EZ7.5AD5	7.5	7.13	7.88	100.0	2.0	700.0	0.50	5.0	5.0	360.0
3EZ8.2AD5	8.2	7.79	8.61	91.0	2.3	700.0	0.50	5.0	6.0	330.0
3EZ9.1AD5	9.1	8.65	9.56	82.0	2.5	700.0	0.50	3.0	7.0	297.0
3EZ10AD5	10.0	9.50	10.50	75.0	3.5	700.0	0.25	3.0	7.6	270.0
3EZ11AD5	11.0	10.45	11.55	68.0	4.0	700.0	0.25	1	8.4	225.0
3EZ12AD5	12.0	11.40	12.60	63.0	4.5	700.0	0.25	1	9.1	246.0
3EZ13AD5	13.0	12.35	13.65	58.0	4.5	700.0	0.25	0.5	9.9	208.0
3EZ14AD5	14.0	13.30	14.70	53.0	5.0	700.0	0.25	0.5	10.6	193.0
3EZ15AD5	15.0	14.25	15.75	50.0	5.5	700.0	0.25	0.5	11.4	180.0
3EZ16AD5	16.0	15.20	16.80	47.0	5.5	700.0	0.25	0.5	12.2	169.0
3EZ17AD5	17.0	16.15	17.85	44.0	6.0	750.0	0.25	0.5	13.0	159.0
3EZ18AD5	18.0	17.10	18.90	42.0	6.0	750.0	0.25	0.5	13.7	150.0
3EZ19AD5	19.0	18.05	19.95	40.0	7.0	750.0	0.25	0.5	14.4	142.0
3EZ20AD5	20.0	19.00	21.00	37.0	7.0	750.0	0.25	0.5	15.2	135.0
3EZ22AD5	22.0	20.90	23.10	34.0	8.0	750.0	0.25	0.5	16.7	123.0
3EZ24AD5	24.0	22.80	25.20	31.0	9.0	750.0	0.25	0.5	18.2	112.0
3EZ27AD5	27.0	25.65	28.35	28.0	10.0	750.0	0.25	0.5	20.6	100.0
3EZ30AD5	30.0	28.50	31.50	25.0	16.0	1000.0	0.25	0.5	22.5	90.0
3EZ33AD5	33.0	31.35	34.65	23.0	20.0	1000.0	0.25	0.5	25.1	82.0
3EZ36AD5	36.0	34.20	37.80	21.0	22.0	1000.0	0.25	0.5	27.4	75.0
3EZ39AD5	39.0	37.05	40.95	19.0	28.0	1000.0	0.25	0.5	29.7	69.0
3EZ43AD5	43.0	40.85	45.15	17.0	33.0	1500.0	0.25	0.5	32.7	63.0
3EZ47AD5	47.0	44.65	49.35	16.0	38.0	1500.0	0.25	0.5	35.6	57.0
3EZ51AD5	51.0	48.45	53.55	15.0	45.0	1500.0	0.25	0.5	38.8	53.0
3EZ56AD5	56.0	53.20	58.80	13.0	50.0	2000.0	0.25	0.5	42.6	48.0
3EZ62AD5	62.0	58.90	65.10	12.0	55.0	2000.0	0.25	0.5	47.1	44.0
3EZ68AD5	68.0	64.60	71.40	11.0	70.0	2000.0	0.25	0.5	51.7	40.0
3EZ75AD5	75.0	71.25	78.75	10.0	85.0	2000.0	0.25	0.5	56.0	36.0
3EZ82AD5	82.0	77.90	86.10	9.1	95.0	3000.0	0.25	0.5	62.2	33.0
3EZ91AD5	91.0	86.45	95.55	8.2	115.0	3000.0	0.25	0.5	69.2	30.0
3EZ100AD5	100.0	95.00	105.00	7.5	160.0	3000.0	0.25	0.5	76.0	27.0
3EZ110AD5	110.0	104.50	115.50	6.8	225.0	4000.0	0.25	0.5	83.6	25.0
3EZ120AD5	120.0	114.00	126.00	6.3	300.0	4500.0	0.25	0.5	91.2	22.0
3EZ130AD5	130.0	123.50	136.50	5.8	375.0	5000.0	0.25	0.5	98.8	21.0
3EZ140AD5	140.0	133.00	147.00	5.3	475.0	5000.0	0.25	0.5	106.4	19.0
3EZ150AD5	150.0	142.50	157.50	5.0	550.0	6000.0	0.25	0.5	114.0	18.0
3EZ160AD5	160.0	152.00	168.00	4.7	625.0	6500.0	0.25	0.5	121.6	17.0
3EZ170AD5	170.0	161.50	178.50	4.4	650.0	7000.0	0.25	0.5	130.4	16.0
3EZ180AD5	180.0	171.00	189.00	4.2	700.0	7000.0	0.25	0.5	136.8	15.0
3EZ190AD5	190.0	180.50	199.50	4.0	800.0	8000.0	0.25	0.5	144.8	14.0
3EZ200AD5	200.0	190.00	210.00	3.7	875.0	8000.0	0.25	0.5	152.0	13.0

Package Outline DO-15



Unit: inch(mm)

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
DO-15	BOX	500/3000	EIA-481-1