

IV. Zener Diode

Zener Diode (3.0 Watt) 3EZ3.9A~3EZ400A

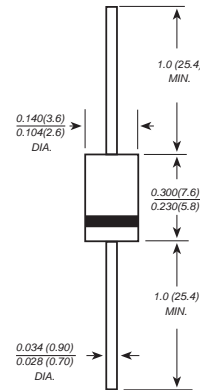
(Package: DO-15)

FEATURES

- Complete voltage range 3.9 to 400 Volts
- High peak reverse power dissipation
- High reliability
- Low leakage current

MECHANICAL DATA

- Case : DO-15 molded plastic
- Epoxy : UL94V-0 rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.40 grams



Case: DO-15
Dimensions in inches and (millimeters)

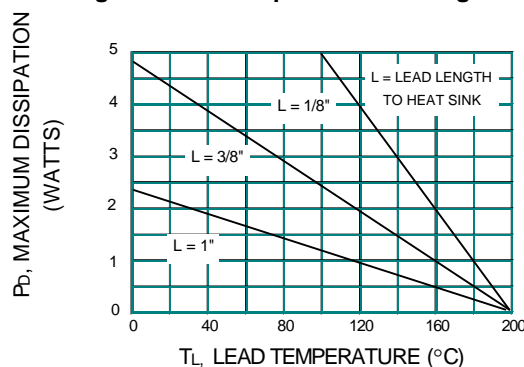
Ratings & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.			
Rating	Symbol	Value	Units
DC power dissipation at $T_L = 75$ °C (Note 1)	P_D	3.0	Watts
Maximum forward voltage at $I_F = 200\text{mA}$	V_F	1.5	Volts
Maximum thermal resistance junction to ambient air (Note 2)	R_{th-JA}	60	$^{\circ}\text{C}/\text{W}$
Junction temperature range	T_j	-55 to +175	
Storage temperature range	T_{stg}	-55 to +175	

Notes:

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 10mm from case.

Fig. 1 Power Temperature Derating Curve



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Device Type	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)	(μ A)	(V)	(mA)
3EZ3.9A	3.9	192	4.5	400	1.0	80	1.0	630
3EZ4.3A	4.3	174	4.5	400	1.0	30	1.0	590
3EZ4.7A	4.7	160	4.0	500	1.0	20	1.0	550
3EZ5.1A	5.1	147	3.5	550	1.0	5.0	1.0	520
3EZ5.6A	5.6	134	2.5	600	1.0	5.0	2.0	480
3EZ6.2A	6.2	121	1.5	700	1.0	5.0	3.0	435
3EZ6.8A	6.8	110	2.0	700	1.0	50	4.0	393
3EZ7.5A	7.5	100	2.0	700	0.5	50	5.0	360
3EZ8.2A	8.2	91	2.3	700	0.5	50	6.0	330
3EZ9.1A	9.1	82	2.5	700	0.5	50	7.0	297
3EZ10A	10	75	3.5	700	0.3	50	7.6	270
3EZ11A	11	68	4.0	700	0.25	50	8.4	225
3EZ12A	12	63	4.5	700	0.25	1.0	9.1	246
3EZ13A	13	58	4.5	700	0.25	0.5	9.1	208
3EZ14A	14	53	5.0	700	0.25	0.5	10.6	193
3EZ15A	15	50	5.5	700	0.25	0.5	11.4	180
3EZ16A	16	47	5.5	700	0.25	0.5	12.2	169
3EZ17A	17	44	6.0	750	0.25	0.5	13.0	159
3EZ18A	18	42	6.0	750	0.25	0.5	13.7	150
3EZ19A	19	40	7.0	750	0.25	0.5	14.4	142
3EZ20A	20	37	7.0	750	0.25	0.5	15.2	135
3EZ22A	22	34	8.0	750	0.25	0.5	16.7	123
3EZ24A	24	31	9.0	750	0.25	0.5	18.2	112
3EZ27A	27	28	10	750	0.25	0.5	20.6	100
3EZ28A	28	27	12	750	0.25	0.5	21.0	96
3EZ30A	30	25	16	1000	0.25	0.5	22.5	90
3EZ33A	33	23	20	1000	0.25	0.5	25.1	82
3EZ36A	36	21	22	1000	0.25	0.5	27.4	75
3EZ39A	39	19	28	1000	0.25	0.5	29.7	69
3EZ43A	43	17	33	1500	0.25	0.5	32.7	63
3EZ47A	47	16	38	1500	0.25	0.5	35.6	57
3EZ51A	51	15	45	1500	0.25	0.5	38.8	53
3EZ56A	56	13	50	2000	0.25	0.5	42.6	48
3EZ62A	62	12	55	2000	0.25	0.5	47.1	44
3EZ68A	68	11	70	2000	0.25	0.5	51.7	40
3EZ75A	75	10	85	2000	0.25	0.5	56.0	36
3EZ82A	82	9.1	95	3000	0.25	0.5	62.2	33
3EZ91A	91	8.2	115	3000	0.25	0.5	69.2	30
3EZ100A	100	7.5	160	3000	0.25	0.5	76.0	27
3EZ110A	110	6.8	225	4000	0.25	0.5	83.6	25
3EZ120A	120	6.3	300	4500	0.25	0.5	91.2	22
3EZ130A	130	5.8	375	5000	0.25	0.5	98.8	21
3EZ140A	140	5.3	475	5000	0.25	0.5	106.4	19
3EZ150A	150	5.0	550	6000	0.25	0.5	114.0	18
3EZ160A	160	4.7	625	6500	0.25	0.5	121.6	17
3EZ170A	170	4.4	650	7000	0.25	0.5	130.4	16
3EZ180A	180	4.2	700	7000	0.25	0.5	136.8	15
3EZ190A	190	4.0	800	8000	0.25	0.5	144.8	14
3EZ200A	200	3.7	875	8000	0.25	0.5	152.0	13
3EZ220A	220	3.4	1600	9000	0.25	1.0	167.0	12
3EZ240A	240	3.1	1700	9000	0.25	1.0	182.0	11
3EZ270A	270	2.8	1800	9000	0.25	1.0	205.0	10
3EZ300A	300	2.5	1900	9000	0.25	1.0	228.0	9
3EZ330A	330	2.3	2200	9000	0.25	1.0	251.0	8
3EZ360A	360	2.1	2700	9000	0.25	1.0	274.0	8
3EZ400A	400	1.9	3500	9000	0.25	1.0	304.0	7

Notes :

Suffix "A" indicates +/-5% tolerance.