



RoHS



2EZxxxD5 Series

ZENER DIODES

V_Z : 3.6 - 200 Volts

P_D : 2 Watts

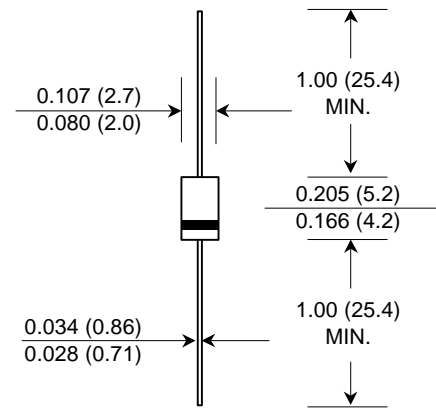
FEATURES :

- * Complete Voltage Range 3.6 to 200 Volts
- * High peak reverse power dissipation
- * High reliability
- * Low leakage current

MECHANICAL DATA

- * Case : DO-41/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 : -- gram

CASE DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

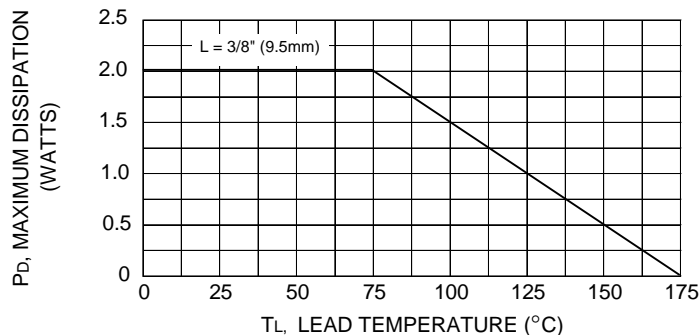
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at T _L = 75 °C (Note1)	P _D	2.0	Watts
Maximum Forward Voltage at I _F = 200 mA	V _F	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	R _{θJA}	60	K / W
Junction Temperature Range	T _J	- 55 to + 175	°C
Storage Temperature Range	T _S	- 55 to + 175	°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.

Fig. 1 POWER TEMPERATURE DERATING CURVE



ELECTRICAL CHARACTERISTICS

Rating at = 25 °C ambient temperature unless otherwise specified

TYPE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	Vz @ IzT	IzT	ZzT @ IzT	Zzk @ Izk	Izk	IR @ VR		IzM
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
2EZ3.6D5	3.6	139	5.0	400	1.0	80	1.0	504
2EZ3.9D5	3.9	128	5.0	400	1.0	30	1.0	468
2EZ4.3D5	4.3	116	4.5	400	1.0	20	1.0	434
2EZ4.7D5	4.7	106	4.5	550	1.0	5.0	1.0	386
2EZ5.1D5	5.1	98.0	3.5	600	1.0	5.0	1.0	356
2EZ5.6D5	5.6	89.5	2.5	500	1.0	5.0	2.0	324
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	50	5.0	242
2EZ8.2D5	8.2	61.0	2.3	700	0.5	50	6.0	220
2EZ9.1D5	9.1	55.0	2.5	700	0.5	50	7.0	200
2EZ10D5	10	50.0	3.5	700	0.25	50	7.6	182
2EZ11D5	11	45.5	4.0	700	0.25	50	8.4	166
2EZ12D5	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	750	0.25	0.5	13.7	100
2EZ19D5	19	26.3	11	750	0.25	0.5	14.4	95
2EZ20D5	20	25.0	11	750	0.25	0.5	15.2	90
2EZ22D5	22	22.8	12	750	0.25	0.5	16.7	82
2EZ24D5	24	20.8	13	750	0.25	0.5	18.2	76
2EZ27D5	27	18.5	18	750	0.25	0.5	20.6	68
2EZ30D5	30	16.6	20	1000	0.25	0.5	22.5	60
2EZ33D5	33	15.1	23	1000	0.25	0.5	25.1	55
2EZ36D5	36	13.9	25	1000	0.25	0.5	27.4	50
2EZ39D5	39	12.8	30	1000	0.25	0.5	29.7	47
2EZ43D5	43	11.6	35	1500	0.25	0.5	32.7	43
2EZ47D5	47	10.6	40	1500	0.25	0.5	35.8	39
2EZ51D5	51	9.8	48	1500	0.25	0.5	38.8	36
2EZ56D5	56	9.0	55	2000	0.25	0.5	42.6	32
2EZ62D5	62	8.1	60	2000	0.25	0.5	47.1	29
2EZ68D5	68	7.4	75	2000	0.25	0.5	51.7	27
2EZ75D5	75	6.7	90	2000	0.25	0.5	56.0	24
2EZ82D5	82	6.1	100	3000	0.25	0.5	62.2	22
2EZ91D5	91	5.5	125	3000	0.25	0.5	69.2	20
2EZ100D5	100	5.0	175	3000	0.25	0.5	76.0	18
2EZ110D5	110	4.5	250	4000	0.25	0.5	83.6	17
2EZ120D5	120	4.2	325	4500	0.25	0.5	91.2	15
2EZ130D5	130	3.8	400	5000	0.25	0.5	98.8	14
2EZ140D5	140	3.6	500	5500	0.25	0.5	106.4	13
2EZ150D5	150	3.3	575	6000	0.25	0.5	114.0	12
2EZ160D5	160	3.1	650	6500	0.25	0.5	121.6	11
2EZ170D5	170	2.9	675	7000	0.25	0.5	130.4	11
2EZ180D5	180	2.8	725	7000	0.25	0.5	136.8	10
2EZ190D5	190	2.6	825	8000	0.25	0.5	144.8	10
2EZ200D5	200	2.5	900	8000	0.25	0.5	152.0	9.0

Note :

- (1) Suffix " 5 " indicates ± 5.0% tolerance, suffix " 10 " indicates ± 10.0% tolerance.
- (2) " EZ " will be omitted in marking on the diode
- (3) Suffix " L " indicates DO-15 Molded plastic

ZENER DIODES

V_z : 220 - 330 Volts

P_D : 2 Watts

MAXIMUM RATINGS

(Rating at 25 °C ambient temperature unless otherwise specified)

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 75\text{ °C}$ (Note1)	P_D	2.0	W
Maximum Forward Voltage at $I_F = 200\text{ mA}$	V_F	2.0	V
Junction Temperature Range	T_J	- 55 to + 175	°C
Storage Temperature Range	T_{STG}	- 55 to + 175	°C

ELECTRICAL CHARACTERISTICS

(Rating at 25 °C ambient temperature unless otherwise specified)

Type No.	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)
2EZ220D5	220	2.0	2000	8500	0.25	0.5	167	8.0
2EZ270D5	270	1.6	2200	8500	0.25	0.5	205	6.7
2EZ300D5	300	1.5	2200	9000	0.25	0.5	228	5.9
2EZ330D5	330	1.4	2300	9000	0.25	0.5	250	5.4

Notes :

- (1) T_L = Lead temperature at 3/8 " (9.5mm) from body.
- (2) Suffix " 5 " indicates $\pm 5\%$ tolerance, suffix " 10 " indicates $\pm 10\%$ tolerance.
- (3) " EZ " will be omitted in marking on the diode.

Fig. 1 Power Temperature Derating Curve

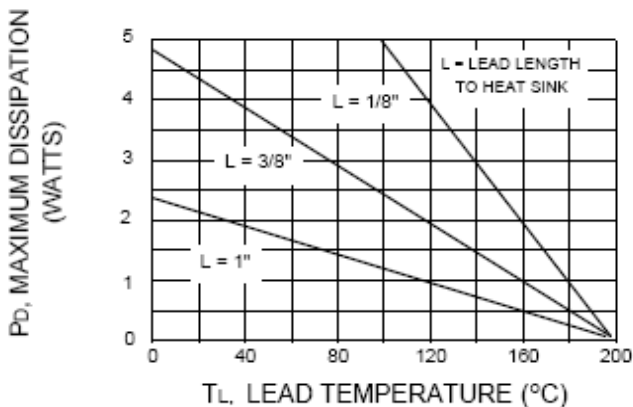


Fig. 2 Maximum Surge Power

