

Ordering Information	
Part Number	Remark
2EZxxxD5	General
2EZxxxD5-H	Halogen Free

### DO-15

Dimensions in inches and (millimeters)

PRIMARY CHARACTERISTICS	
$V_{RRM}$	6.2~330V
$V_F$	1.5V
$T_J \text{ max}$	150°C

#### FEATURES

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Lead (Pb)-free component
- For use in stabilizing and clipping circuits with high power rating

#### Mechanical Data

- Case: DO-15
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Weight: 0.373grams (approximate)

#### Absolute Maximum Ratings

Parameter	Symbol	Value	UNIT
DC Power Dissipation at $T_L = 50^\circ\text{C}$ (Note1)	$P_D$	2.0	W
Maximum Forward Voltage at $I_F = 200 \text{ mA}$	$V_F$	1.5	V
Junction Temperature Range	$T_J$	- 55 to + 150	°C
Storage Temperature Range	$T_{STG}$	- 55 to + 150	°C

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



# 2EZxxxD5 SERIES



## 2W Zener Diodes

2 Watt Zener Diodes / DO-15

Part Number	Nominal Zener Voltage		Max. Zener Impedance				Max. Reverse Leakage Current		Max. DC Zener Current	Marking Code
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		$I_{ZM}$	
	Nom. V	mA	$\Omega$	mA	$\Omega$	mA	$\mu A$	V	mA	
2EZ6.2D5	6.2	80.5	1.5	80.5	700	1.0	5.0	3.0	292	2EZ6.2D5
2EZ6.8D5	6.8	73.5	2.0	73.5	700	1.0	5.0	4.0	266	2EZ6.8D5
2EZ7.5D5	7.5	66.5	2.0	66.5	700	0.5	5.0	5.0	242	2EZ7.5D5
2EZ8.2D5	8.2	61.0	2.3	61.0	700	0.5	5.0	6.0	220	2EZ8.2D5
2EZ9.1D5	9.1	55.0	2.5	55.0	700	0.5	3.0	7.0	200	2EZ9.1D5
2EZ10D5	10.0	50.0	3.5	50.0	700	0.25	3.0	7.6	182	2EZ10D5
2EZ11D5	11.0	45.5	4.0	45.5	700	0.25	1.0	8.4	166	2EZ11D5
2EZ12D5	12.0	41.5	4.5	41.5	700	0.25	1.0	9.1	152	2EZ12D5
2EZ13D5	13.0	38.5	5.0	38.5	700	0.25	0.5	9.9	138	2EZ13D5
2EZ14D5	14.0	35.7	5.5	35.7	700	0.25	0.5	10.6	130	2EZ14D5
2EZ15D5	15.0	33.4	7.0	33.4	700	0.25	0.5	11.4	122	2EZ15D5
2EZ16D5	16.0	31.2	8.0	31.2	700	0.25	0.5	12.2	114	2EZ16D5
2EZ17D5	17.0	29.4	9.0	29.4	750	0.25	0.5	13.0	107	2EZ17D5
2EZ18D5	18.0	27.8	10.0	27.8	750	0.25	0.5	13.7	100	2EZ18D5
2EZ19D5	19.0	26.3	11.0	26.3	750	0.25	0.5	14.4	95	2EZ19D5
2EZ20D5	20.0	25.0	11.0	25.0	750	0.25	0.5	15.2	90	2EZ20D5
2EZ22D5	22.0	22.8	12.0	22.8	750	0.25	0.5	16.7	82	2EZ22D5
2EZ24D5	24.0	20.8	13.0	20.8	750	0.25	0.5	18.2	76	2EZ24D5
2EZ27D5	27.0	18.5	18.0	18.5	750	0.25	0.5	20.6	68	2EZ27D5
2EZ30D5	30.0	16.6	20.0	16.6	1000	0.25	0.5	22.5	60	2EZ30D5
2EZ33D5	33.0	15.1	23.0	15.1	1000	0.25	0.5	25.1	55	2EZ33D5
2EZ36D5	36.0	13.9	25.0	13.9	1000	0.25	0.5	27.4	50	2EZ36D5
2EZ39D5	39.0	12.8	30.0	12.8	1000	0.25	0.5	29.7	47	2EZ39D5
2EZ43D5	43.0	11.6	35.0	11.6	1500	0.25	0.5	32.7	43	2EZ43D5
2EZ47D5	47.0	10.6	40.0	10.6	1500	0.25	0.5	35.8	39	2EZ47D5
2EZ51D5	51.0	9.8	48.0	9.8	1500	0.25	0.5	38.8	36	2EZ51D5
2EZ56D5	56.0	9.0	55.0	9.0	2000	0.25	0.5	42.6	32	2EZ56D5
2EZ62D5	62.0	8.1	60.0	8.1	2000	0.25	0.5	47.1	29	2EZ62D5
2EZ68D5	68.0	7.4	75.0	7.4	2000	0.25	0.5	51.7	27	2EZ68D5
2EZ75D5	75.0	6.7	90.0	6.7	2000	0.25	0.5	56.0	24	2EZ75D5
2EZ82D5	82.0	6.1	100.0	6.1	3000	0.25	0.5	62.2	22	2EZ82D5
2EZ91D5	91	5.5	125	5.5	3000	0.25	0.5	69.2	20	2EZ91D5
2EZ100D5	100	5.0	175	5.0	3000	0.25	0.5	76.0	18	2EZ100D5
2EZ110D5	110	4.5	250	4.5	4000	0.25	0.5	83.6	17	2EZ110D5
2EZ120D5	120	4.2	325	4.2	4500	0.25	0.5	91.2	15	2EZ120D5
2EZ130D5	130	3.8	400	3.8	5000	0.25	0.5	98.8	14	2EZ130D5
2EZ140D5	140	3.6	500	3.6	5500	0.25	0.5	106.4	13	2EZ140D5
2EZ150D5	150	3.3	575	3.3	6000	0.25	0.5	114.0	12	2EZ150D5
2EZ160D5	160	3.1	650	3.1	6500	0.25	0.5	121.6	11	2EZ160D5
2EZ170D5	170	2.9	675	2.9	7000	0.25	0.5	130.4	11	2EZ170D5



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	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		$I_{ZM}$	
	Nom. V	mA	$\Omega$	mA	$\Omega$	mA	$\mu A$	V	mA	
2EZ180D5	180	2.8	725	2.8	7000	0.25	0.5	136.8	10	2EZ180D5
2EZ190D5	190	2.6	825	2.6	8000	0.25	0.5	144.8	10	2EZ190D5
2EZ200D5	200	2.5	1900	2.5	9990	0.25	0.5	152.0	9	2EZ200D5
2EZ220D5	220	2.0	2000	2.0	8500	0.25	0.5	167.0	8	2EZ220D5
2EZ270D5	270	1.6	2200	1.6	8500	0.25	0.5	205.0	6.7	2EZ270D5
2EZ300D5	300	1.5	2200	1.5	9000	0.25	0.5	228.0	5.9	2EZ300D5
2EZ330D5	330	1.4	2300	1.4	9000	0.25	0.5	250.0	5.4	2EZ330D5

### Notes :

- (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



Fig. 1 - Power Temperature Derating Curve

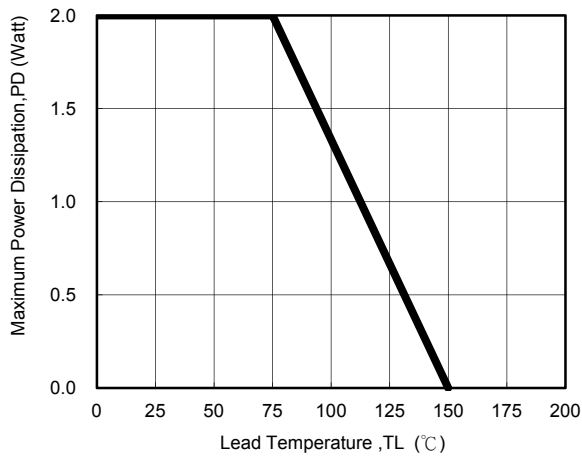


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

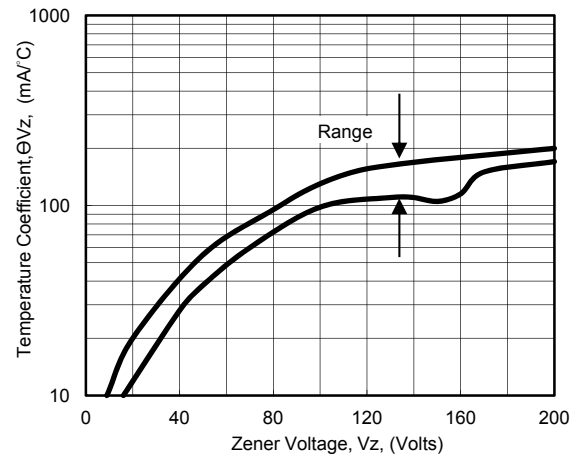


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

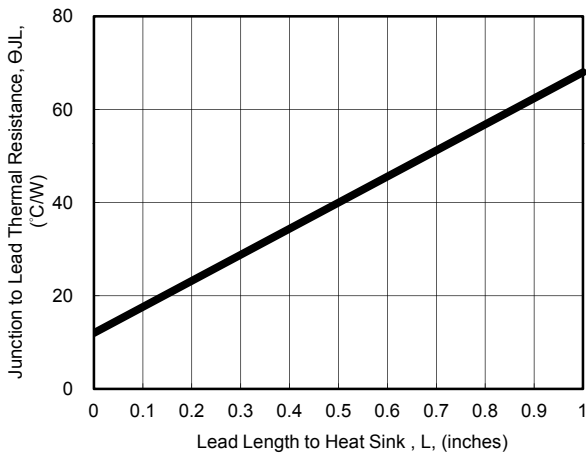


Fig. 4 - Maximum Surge Power

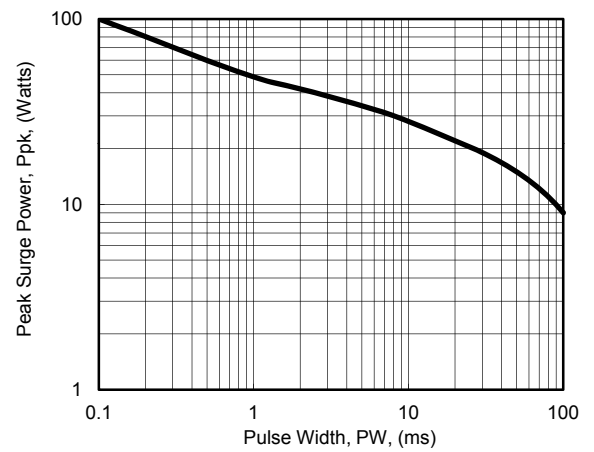


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

