T1N5913B - T1N5956B
Zener Diodes

V_Z: 3.3 to 200 V

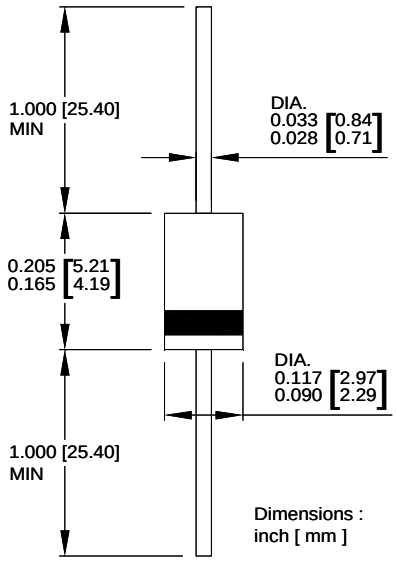
P_D: 1.5 W

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 with high power rating

Axial Lead

DO-41



Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

Maximum Ratings(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	UNIT
DC power dissipation at T_L = 75 °C(1)	P_D	1.5	W
Maximum forward voltage at I_F = 200 mA	V_F	1.5	V
Junction temperature range	T_J	- 55 to + 175	°C
Storage temperature range	T_{STG}	- 55 to + 175	°C

Note:

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

Ratings and Characteristics Curves (T_A=25℃ unless otherwise noted)

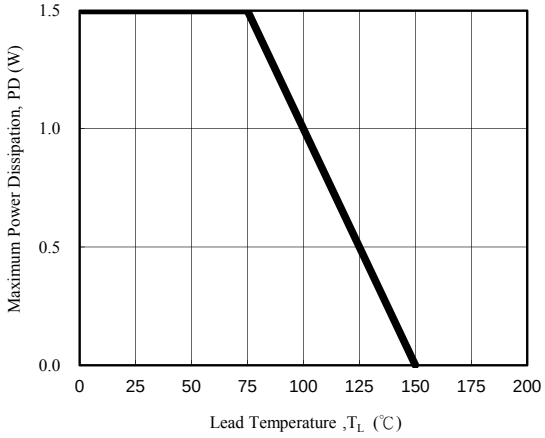


Fig. 1 - Power Temperature Derating Curve

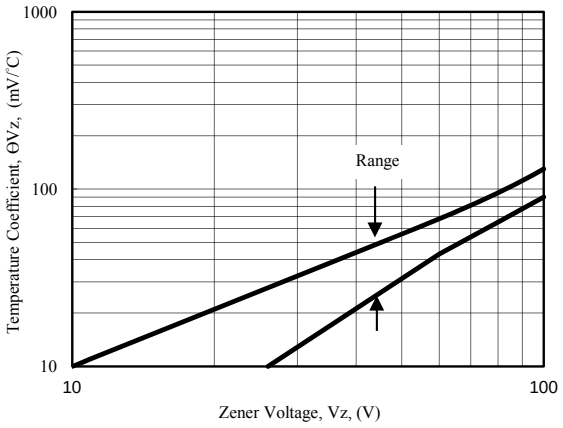


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

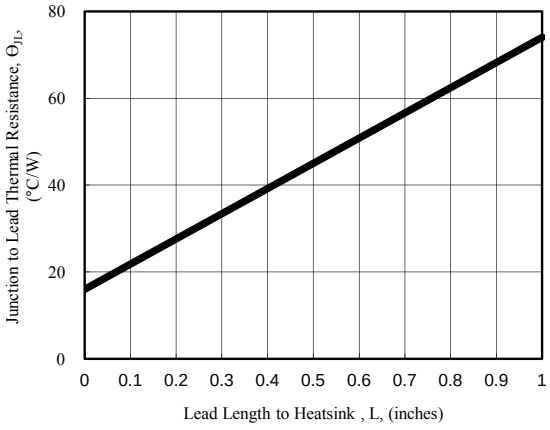


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

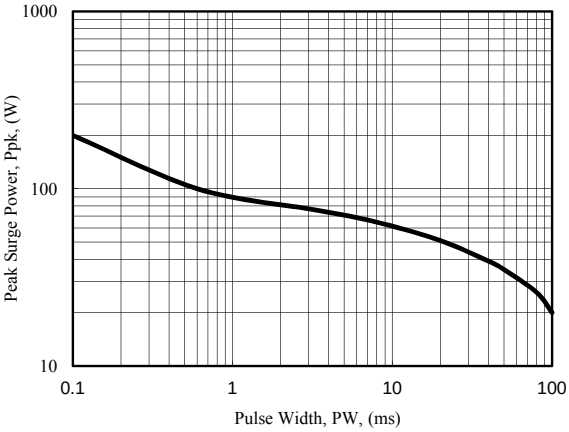


Fig. 4 - Maximum Surge Power

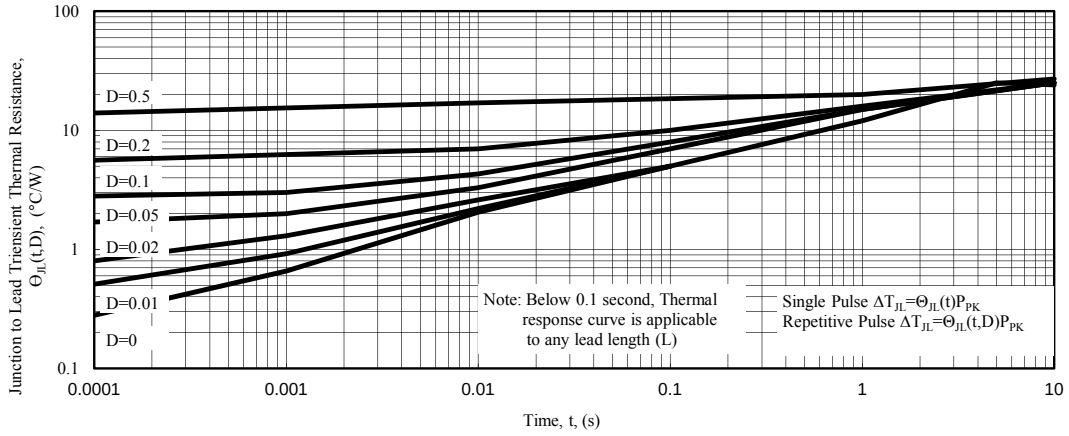


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

Electrical Characteristics(T_A=25℃ 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)
T1N5913B	3.3	113.6	10.0	500	1.00	100.0	1.0	454
T1N5914B	3.6	104.2	9.0	500	1.00	75.0	1.0	416
T1N5915B	3.9	96.1	7.5	500	1.00	25.0	1.0	384
T1N5916B	4.3	87.2	6.0	500	1.00	5.0	1.0	348
T1N5917B	4.7	79.8	5.0	500	1.00	5.0	1.5	319
T1N5918B	5.1	73.5	4.0	350	1.00	5.0	2.0	294
T1N5919B	5.6	66.9	2.0	250	1.00	5.0	3.0	267
T1N5920B	6.2	60.5	2.0	200	1.00	2.5	4.0	240
T1N5921B	6.8	55.1	2.5	200	1.00	2.5	5.2	220
T1N5922B	7.5	50.0	3.0	400	0.50	2.5	6.0	200
T1N5923B	8.2	45.7	3.5	400	0.50	2.5	6.5	182
T1N5924B	9.1	41.2	4.0	500	0.50	2.5	7.0	164
T1N5925B	10.0	37.5	4.5	500	0.25	2.5	8.0	150
T1N5926B	11.0	34.1	5.5	550	0.25	0.5	8.4	136
T1N5927B	12.0	31.2	6.5	550	0.25	0.5	9.1	125
T1N5928B	13.0	28.8	7.0	550	0.25	0.5	9.9	115
T1N5929B	15.0	25.0	9.0	600	0.25	0.5	11.4	100
T1N5930B	16.0	23.4	10.0	600	0.25	0.5	12.2	93
T1N5931B	18.0	20.8	12.0	650	0.25	0.5	13.7	83
T1N5932B	20.0	18.7	14.0	650	0.25	0.5	15.2	75
T1N5933B	22.0	17.0	17.5	650	0.25	0.5	16.7	68
T1N5934B	24.0	15.6	19.0	700	0.25	0.5	18.2	62
T1N5935B	27.0	13.9	23.0	700	0.25	0.5	20.6	55
T1N5936B	30.0	12.5	26.0	750	0.25	0.5	22.8	50
T1N5937B	33.0	11.4	33.0	800	0.25	0.5	25.1	45
T1N5938B	36.0	10.4	38.0	850	0.25	0.5	27.4	41
T1N5939B	39.0	9.6	45.0	900	0.25	0.5	29.7	38
T1N5940B	43.0	8.7	53.0	950	0.25	0.5	32.7	34
T1N5941B	47.0	8.0	67.0	1000	0.25	0.5	35.8	31
T1N5942B	51.0	7.3	70.0	1100	0.25	0.5	38.8	29
T1N5943B	56.0	6.7	86.0	1300	0.25	0.5	42.6	26
T1N5944B	62.0	6.0	100.0	1500	0.25	0.5	47.1	24
T1N5945B	68.0	5.5	120.0	1700	0.25	0.5	51.7	22
T1N5946B	75.0	5.0	140.0	2000	0.25	0.5	56.0	20
T1N5947B	82.0	4.6	160.0	2500	0.25	0.5	62.2	18
T1N5948B	91.0	4.1	200.0	3000	0.25	0.5	69.2	16
T1N5949B	100.0	3.7	250.0	3100	0.25	0.5	76.0	15
T1N5950B	110.0	3.4	300.0	4000	0.25	0.5	83.6	13
T1N5951B	120.0	3.1	380.0	4500	0.25	0.5	91.2	12
T1N5952B	130.0	2.9	450.0	5000	0.25	0.5	98.8	11
T1N5953B	150.0	2.5	600.0	6000	0.25	0.5	114.0	10
T1N5954B	160.0	2.3	700.0	6500	0.25	0.5	121.6	9
T1N5955B	180.0	2.1	900.0	7000	0.25	0.5	136.8	8
T1N5956B	200.0	1.9	1900.0	8000	0.25	0.5	152.0	7

Notes :

(1) The type number listed have a standard tolerance on the nominal zener voltage of ± 5 %

(2) The revese surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IZT per Method