

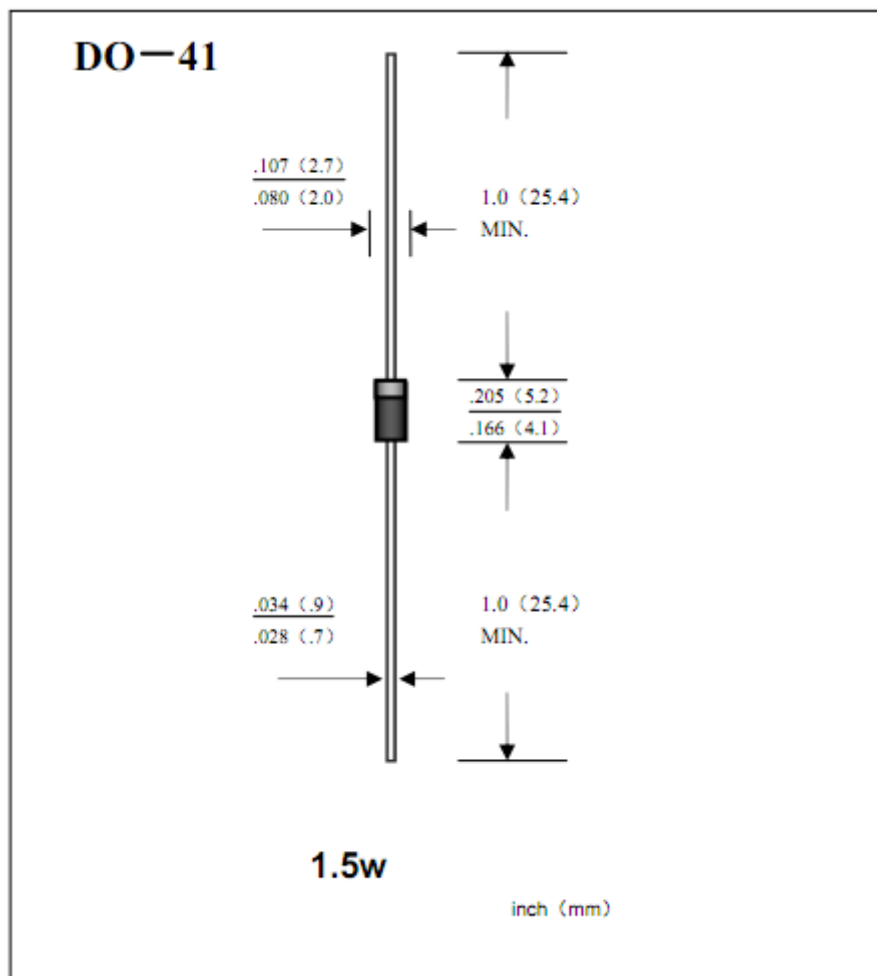


Zener Diode

Feature

- P_t 1.5W
- V_z 3.3V-240V

Outline Dimensions



Limiting Values (Absolute Maximum Rating, $T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Limit	Unit
Zener Current	I_z MAX	See Table	mA
Power dissipation @ $T_L=75^\circ\text{C}$ (Note 1)	P_t	1.5	W
Forward voltage @ $I_F = 200$ mA	V_F	1.5	V
Thermal Resistance (Between junction and ambient , Note1)	R_{θ} (ja)	28	$^\circ\text{C}/\text{W}$
Junction temperature / Storage temperature range	T_J, T_{STG}	-55~+175	$^\circ\text{C}$
Notes 1. T_a --Temp. of Lead at which 9.5mm from the body			


Electrical Characteristics (T_a=25°C Unless otherwise specified)

Type (Note1)	Zener voltage V _{Z@I_{ZT}}	I _{ZT}	Z _{ZT@I_{ZT}}	Z _{ZK@I_{ZK}}	I _{ZK}	I _{R@V_R}	@V _R	@V _(BR) I _{ZM@50°C} (Note3)
	V	mA	Ω	Ω	mA	μA	@V _R	mA
1N5913B	3.3	113.6	10	500	1.0	100	1.0	454
1N5914B	3.6	104.2	9.0	500	1.0	75	1.0	416
1N5915B	3.9	96.1	7.5	500	1.0	25	1.0	384
1N5916B	4.3	87.2	6.0	500	1.0	5.0	1.0	348
1N5917B	4.7	79.8	5.0	500	1.0	5.0	1.5	319
1N5918B	5.1	73.5	4.0	500	1.0	5.0	2.0	294
1N5919B	5.6	66.9	2.0	500	1.0	5.0	3.0	267
1N5920B	6.2	60.5	2.0	200	1.0	5.0	4.0	241
1N5921B	6.8	55.1	2.5	200	1.0	5.0	5.2	220
1N5922B	7.5	50.0	3.0	400	0.5	5.0	6.0	200
1N5923B	8.2	45.7	3.5	400	0.5	5.0	6.5	182
1N5924B	9.1	41.2	4.0	500	0.5	5.0	7.0	164
1N5925B	10	37.5	4.5	500	0.25	5.0	8.0	150
1N5926B	11	34.1	5.5	550	0.25	5.0	8.4	136
1N5927B	12	31.2	6.5	550	0.25	1.0	9.1	125
1N5928B	13	28.8	7.0	550	0.25	1.0	9.9	115
1N5929B	15	25.0	9.0	600	0.25	1.0	11.4	100
1N5930B	16	23.4	10	600	0.25	1.0	12.2	93
1N5931B	18	20.8	12	650	0.25	1.0	13.7	83
1N5932B	20	18.7	14	650	0.25	1.0	15.2	75
1N5933B	22	17.0	17.5	650	0.25	1.0	16.7	68
1N5934B	24	15.6	19	700	0.25	1.0	18.2	62
1N5935B	27	13.9	23	700	0.25	1.0	20.6	55
1N5936B	30	12.5	26	750	0.25	1.0	22.8	50
1N5937B	33	11.4	33	800	0.25	1.0	25.1	45
1N5938B	36	10.4	38	850	0.25	1.0	27.4	41
1N5939B	39	9.6	45	900	0.25	1.0	29.7	38
1N5940B	43	8.7	53	950	0.25	1.0	32.7	34
1N5941B	47	8.0	67	1000	0.25	1.0	35.8	31
1N5942B	51	7.3	70	1100	0.25	1.0	38.8	29
1N5943B	56	6.7	86	1300	0.25	1.0	42.6	26
1N5944B	62	6.0	100	1500	0.25	1.0	47.1	24
1N5945B	68	5.5	120	1700	0.25	1.0	51.7	22
1N5946B	75	5.0	140	2000	0.25	1.0	56.0	20
1N5947B	82	4.6	160	2500	0.25	1.0	62.2	18
1N5948B	91	4.1	200	3000	0.25	1.0	69.2	16
1N5949B	100	3.7	250	3100	0.25	1.0	76.0	15
1N5950B	110	3.4	300	4000	0.25	1.0	83.6	13
1N5951B	120	3.1	380	4500	0.25	1.0	91.2	12
1N5952B	130	2.9	450	5000	0.25	1.0	98.8	11
1N5953B	150	2.5	600	6000	0.25	1.0	114.0	10
1N5954B	160	2.3	700	6500	0.25	1.0	121.6	9.0
1N5955B	180	2.1	900	7000	0.25	1.0	136.8	8.0
1N5956B	200	1.9	1200	8000	0.25	1.0	152.0	7.0
1N5957B	240	1.5	1600	9000	0.25	1.0	182.4	6.0

Notes :

1. Zener Tolerance: ±5% .
2. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.
3. The max zener current is not absolute , Please confirm that the product of the voltage and current should not exceed the rated Power dissipation in actual zener application.



■特性曲线（典型）

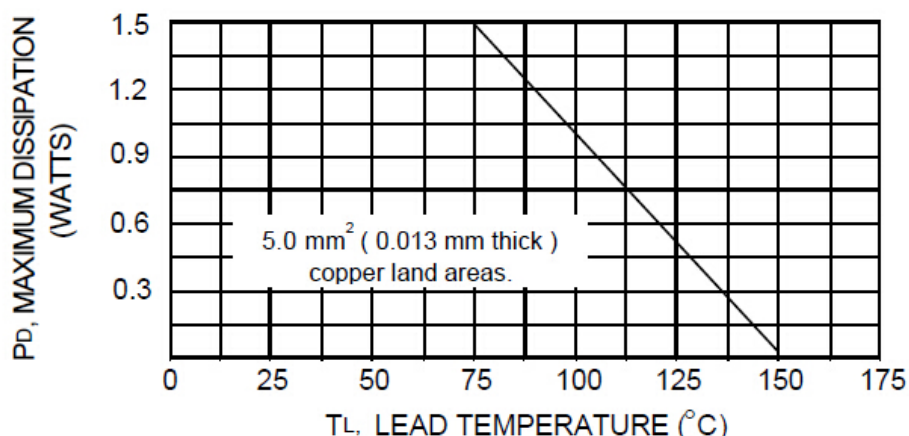


Figure1.Power Temperature Derating Curve

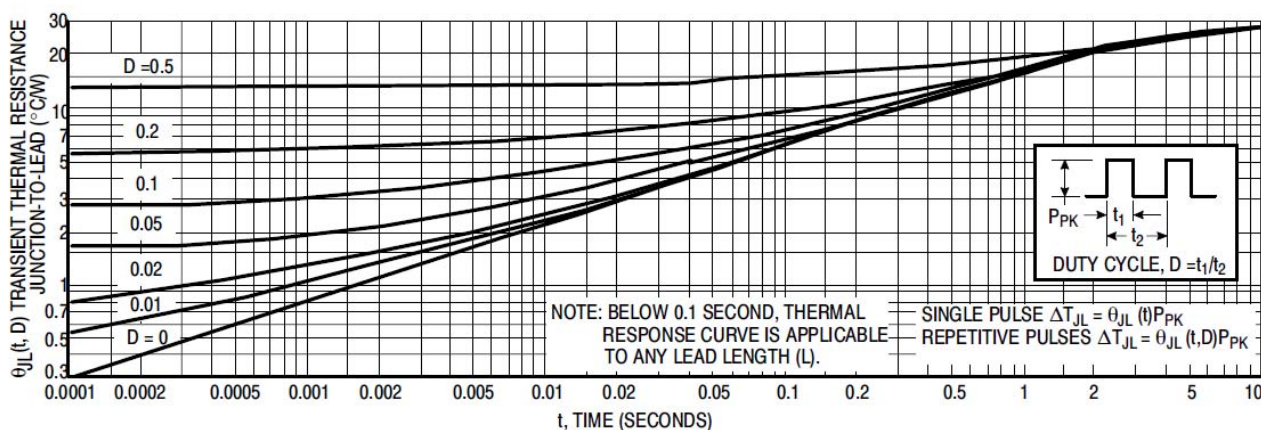


Figure 2. Typical Thermal Response L, Lead Length = 3/8 Inch

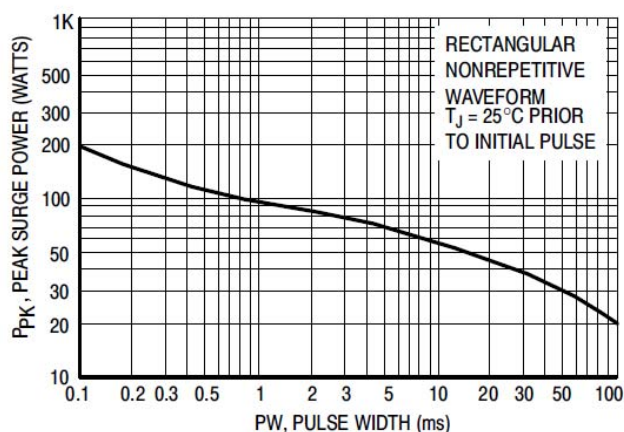


Figure 3. Maximum Surge Power

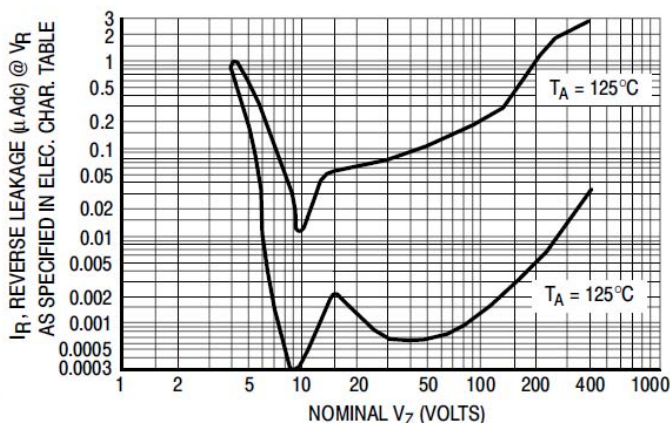


Figure 4. Typical Reverse Leakage