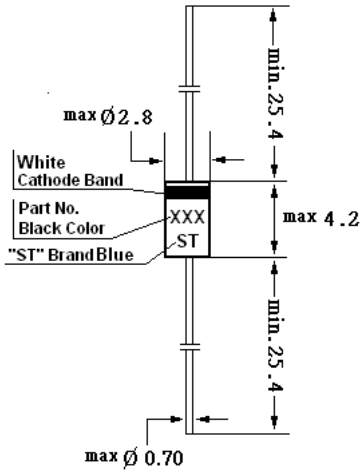
1N5913BG...1N5956BG

3 WATT ZENER DIODES

Mechanical Data
Case: DO-41 Glass Case



Glass Case JEDEC DO-41
Dimensions in mm

Absolute Maximum Ratings (Ta = 25 °C)

	Symbol	Value	Unit
Max. Steady State Power Dissipation @ T_L = 75°C, Lead Length = 3/8” Derate above 75°C	P_{tot}	3 24	W mW/°C
Steady State Power Dissipation T_a = 50°C Derate above 50°C	P_{tot}	1 6.67	W mW/°C
Junction Temperature	T_j	-65 to +200	°C
Storage Temperature Range	T_S	-65 to +200	°C

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Characteristics (T_a = 25°C unless otherwise noted, V_F = 1.5V Max @ I_F = 200mA for all types)

Type[1]	Zener Voltage[2]				Zener Impedance[3]			Leakage Current		I_{ZM}
	V_Z			@ I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R		
	Min	Nom	Max	mA	Ω	Ω	mA	µA Max	V	mA
1N5913BG	3.14	3.3	3.47	113.6	10	500	1	100	1	454
1N5917BG	4.47	4.7	4.94	79.8	5	500	1	5	1.5	319
1N5919BG	5.32	5.6	5.88	66.9	2	250	1	5	3	267
1N5920BG	5.89	6.2	6.51	60.5	2	200	1	5	4	241
1N5921BG	6.46	6.8	7.14	55.1	2.5	200	1	5	5.2	220
1N5923BG	7.79	8.2	8.61	45.7	3.5	400	0.5	5	6.5	182
1N5924BG	8.65	9.1	9.56	41.2	4	500	0.5	5	7	164
1N5925BG	9.50	10	10.50	37.5	4.5	500	0.25	5	8	150
1N5926BG	10.45	11	11.55	34.1	5.5	550	0.25	1	8.4	136
1N5927BG	11.40	12	12.60	31.2	6.5	550	0.25	1	9.1	125
1N5929BG	14.25	15	15.75	25.0	9	600	0.25	1	11.4	100
1N5930BG	15.20	16	16.80	23.4	10	600	0.25	1	12.2	93
1N5931BG	17.10	18	18.90	20.8	12	650	0.25	1	13.7	83
1N5932BG	19.00	20	21.00	18.7	14	650	0.25	1	15.2	75
1N5933BG	20.90	22	23.10	17.0	17.5	650	0.25	1	16.7	68
1N5934BG	22.80	24	25.20	15.6	19	700	0.25	1	18.2	62
1N5935BG	25.65	27	28.35	13.9	23	700	0.25	1	20.6	55
1N5936BG	28.50	30	31.50	12.5	28	750	0.25	1	22.8	50
1N5937BG	31.35	33	34.65	11.4	33	800	0.25	1	25.1	45
1N5938BG	34.20	36	27.80	10.4	38	850	0.25	1	27.4	41
1N5940BG	40.85	43	45.15	8.7	53	950	0.25	1	32.7	34
1N5941BG	44.65	47	49.35	8.0	67	1000	0.25	1	35.8	31
1N5942BG	48.45	51	53.55	7.3	70	1100	0.25	1	38.8	29
1N5943BG	53.20	56	58.80	6.7	86	1300	0.25	1	42.6	26
1N5944BG	58.90	62	65.10	6.0	100	1500	0.25	1	47.1	24
1N5945BG	64.60	68	71.40	5.5	120	1700	0.25	1	51.7	22
1N5946BG	71.25	75	78.75	5.0	140	2000	0.25	1	56	20
1N5947BG	77.90	82	86.10	4.6	160	2500	0.25	1	62.2	18
1N5948BG	86.45	91	95.55	4.1	200	3000	0.25	1	69.2	16
1N5950BG	104.5	110	115.5	3.4	300	4000	0.25	1	83.6	13
1N5951BG	114	120	126	3.1	380	4500	0.25	1	91.2	12
1N5952BG	123.5	130	136.5	2.9	450	5000	0.25	1	98.8	11
1N5953BG	142.5	150	157.5	2.5	600	6000	0.25	1	114	10
1N5954BG	152	160	168	2.3	700	6500	0.25	1	121.6	9
1N5955BG	171	180	189	2.1	900	7000	0.25	1	136.8	8
1N5956BG	190	200	210	1.9	1200	8000	0.25	1	152	7

[1] TOLERANCE AND TYPE NUMBER DESIGNATION

Tolerance designation-device tolerance of ±5% are indicated by a “B” suffix.

[2] ZENER IMPEDANCE (Z_Z) DERIVATION

The zener impedance is derived from 60 seconds 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 on I_{ZT} or I_{ZK}.

[3] Tested with pulses tp = 20 ms.

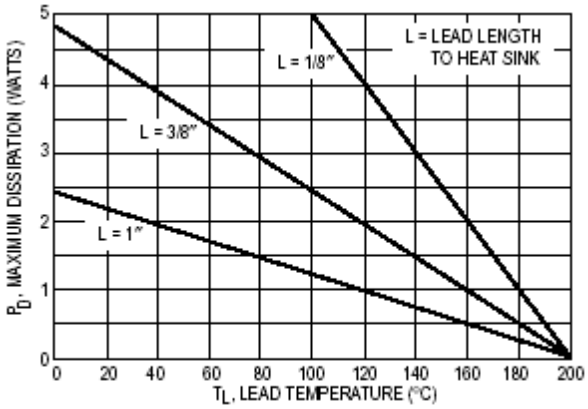

Figure 1. Power Temperature Derating Curve

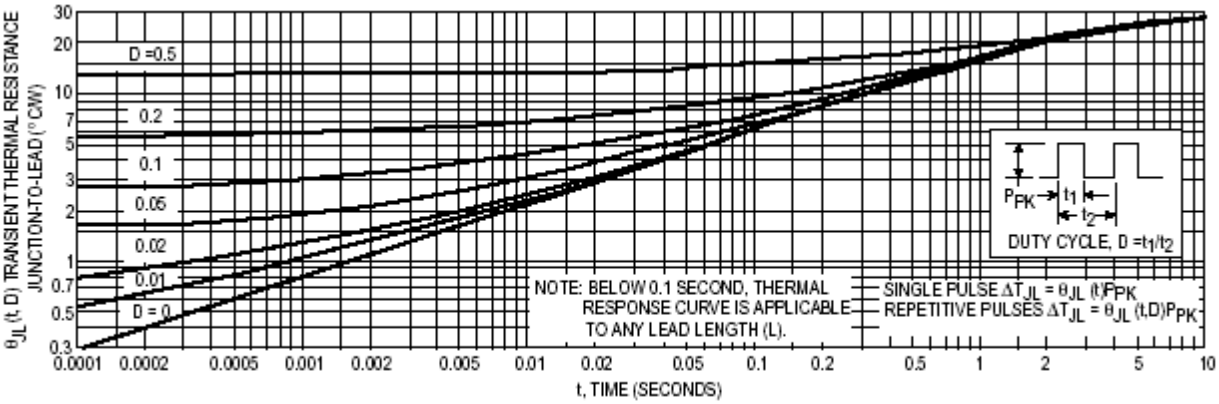

Figure 2. Typical Thermal Response L, Lead Length = 3/8 Inch

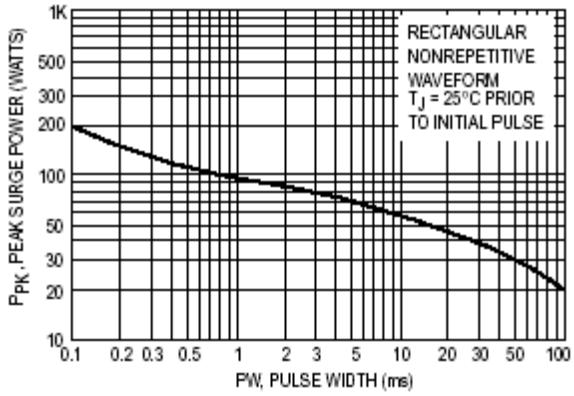

Figure 3. Maximum Surge Power

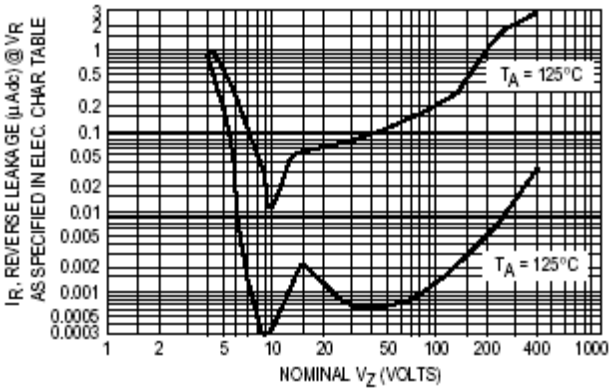

Figure 4. Typical Reverse Leakage

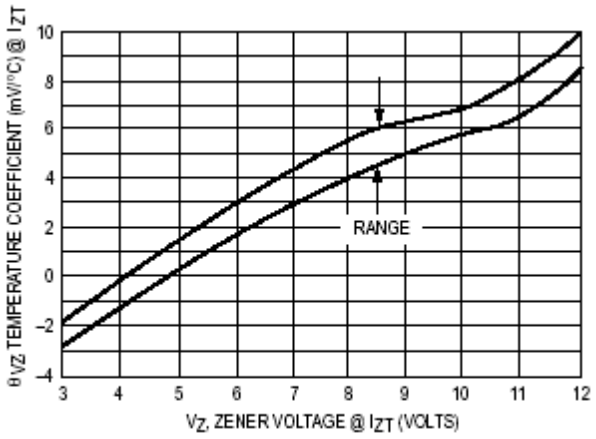

Figure 5. Units To 12 Volts

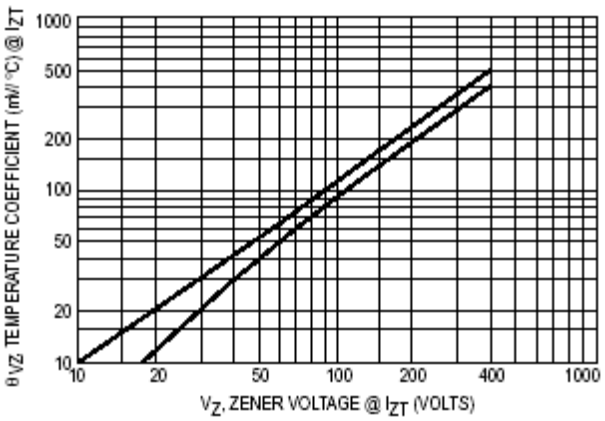

Figure 6. Units 10 To 400 Volts

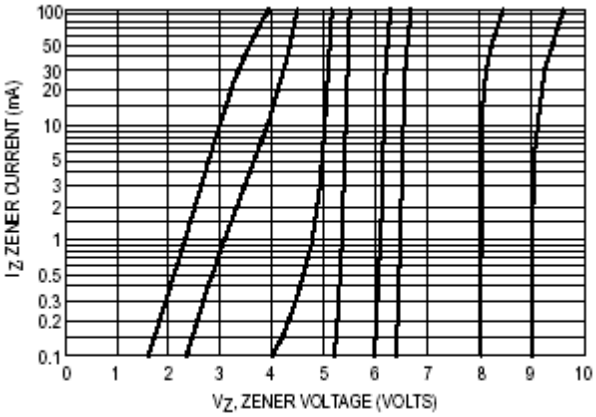

Figure 7. VZ = 3.3 thru 10 Volts

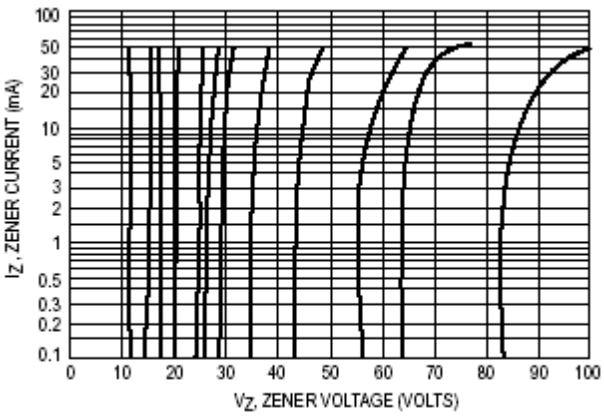

Figure 8. VZ = 12 thru 82 Volts

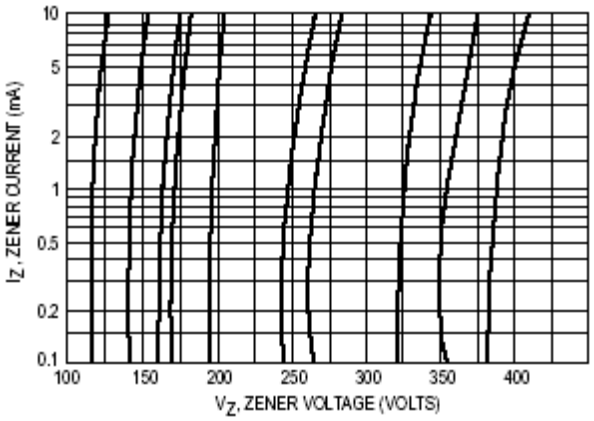

Figure 9. VZ = 100 thru 400 Volts

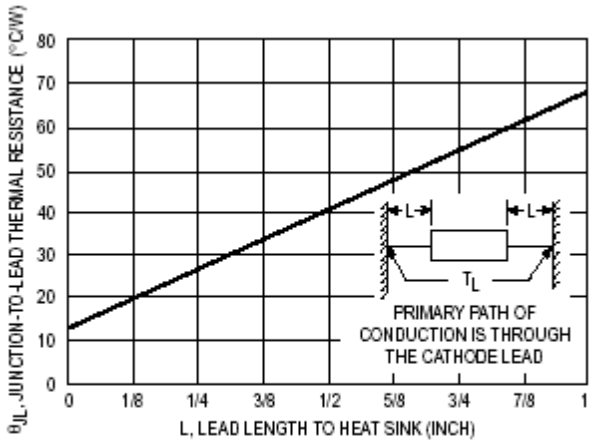

Figure 10. Typical Thermal Resistance