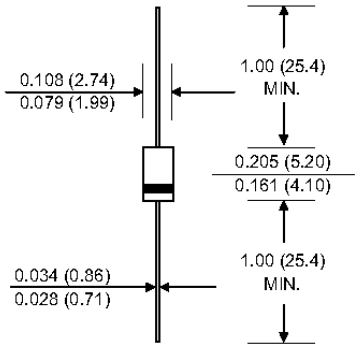
1N5913B...1N5956B (EPOXY)

3 W SILICON ZENER DIODES

Features

- Zener Voltage Range 3.3 V to 200 V
- High peak reverse power dissipation
- High reliability

DO - 41



Dimensions in inches and (millimeters)

Mechanical Data

- **Case:** DO-41 Molded plastic
- **Epoxy:** UL 94V-0 rate flame retardant
- **Lead:** Axial lead solderable per MIL-STD-202, method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Maximum Steady State Power Dissipation at T_L = 75 °C, Lead Length = 3/8"	P_D	3	W
Operating and Storage Temperature Range	T_J, T_{Stg}	- 65 to + 200	°C

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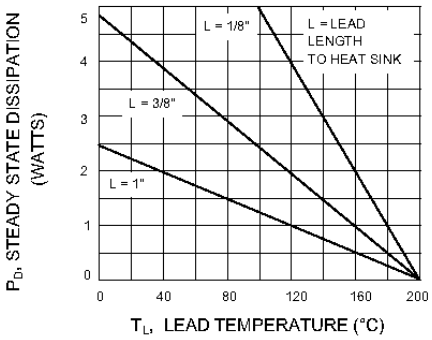
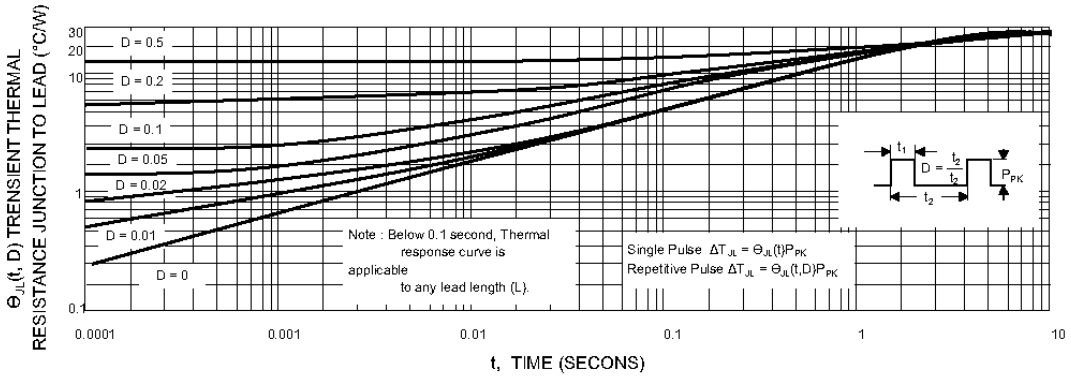
Characteristics T_a = 25 °C unless otherwise specified

Type	Zener Voltage				Maximum Zener Impedance				Leakage Current		Maximum DC Zener Current
	V_Z				Z_{ZT}		Z_{ZK}		I_R		
	Nom. (V)	Min. (V)	Max. (V)	I_{ZT} (mA)	Max. (Ω)	I_{ZT} (mA)	Max. (Ω)	I_{ZK} (mA)	Max. (μA)	V_R (V)	I_{ZM} (mA)
1N5913B	3.3	3.14	3.47	113.6	10	113.6	500	1	100	1	454
1N5914B	3.6	3.42	3.78	104.2	9	104.2	500	1	75	1	416
1N5915B	3.9	3.71	4.1	96.1	7.5	96.1	500	1	25	1	384
1N5916B	4.3	4.09	4.52	87.2	6	87.2	500	1	5	1	348
1N5917B	4.7	4.47	4.94	79.8	5	79.8	500	1	5	1.5	319
1N5918B	5.1	4.85	5.36	73.5	4	73.5	350	1	5	2	294
1N5919B	5.6	5.32	5.88	66.9	2	66.9	250	1	40	3	267
1N5920B	6.2	5.89	6.51	60.5	2	60.5	200	1	40	4	241
1N5921B	6.8	6.46	7.14	55.1	2.5	55.1	200	1	50	5.2	220
1N5922B	7.5	7.13	7.88	50	3	50	400	0.5	50	6	200
1N5923B	8.2	7.79	8.61	45.7	3.5	45.7	400	0.5	50	6.5	182
1N5924B	9.1	8.65	9.56	41.2	4	41.2	500	0.5	50	7	164
1N5925B	10	9.5	10.5	37.5	4.5	37.5	500	0.25	50	8	150
1N5926B	11	10.45	11.55	34.1	5.5	34.1	550	0.25	50	8.4	136
1N5927B	12	11.4	12.6	31.2	6.5	31.2	550	0.25	1	9.1	125
1N5928B	13	12.35	13.65	28.8	7	28.8	550	0.25	1	9.9	115
1N5929B	15	14.25	15.75	25	9	25	600	0.25	1	11.4	100
1N5930B	16	15.2	16.8	23.4	10	23.4	600	0.25	1	12.2	93
1N5931B	18	17.1	18.9	20.8	12	20.8	650	0.25	1	13.7	83
1N5932B	20	19	21	18.7	14	18.7	650	0.25	1	15.2	75
1N5933B	22	20.9	23.1	17	17.5	17	650	0.25	1	16.7	68
1N5934B	24	22.8	25.2	15.6	19	15.6	700	0.25	1	18.2	62
1N5935B	27	25.65	28.35	13.9	23	13.9	700	0.25	1	20.6	55
1N5936B	30	28.5	31.5	12.5	26	12.5	750	0.25	1	22.8	50
1N5937B	33	31.35	34.65	11.4	33	11.4	800	0.25	1	25.1	45
1N5938B	36	34.2	37.8	10.4	38	10.4	850	0.25	1	27.4	41
1N5939B	39	37.05	40.95	9.6	45	9.6	900	0.25	1	29.7	38
1N5940B	43	40.85	45.15	8.7	53	8.7	950	0.25	1	32.7	34
1N5941B	47	44.65	49.35	8	67	8	1000	0.25	1	35.8	31
1N5942B	51	48.45	53.55	7.3	70	7.3	1100	0.25	1	38.8	29
1N5943B	56	53.2	58.8	6.7	86	6.7	1300	0.25	1	42.6	26
1N5944B	62	58.9	65.1	6	100	6	1500	0.25	1	47.1	24
1N5945B	68	64.6	71.4	5.5	120	5.5	1700	0.25	1	51.7	22
1N5946B	75	71.25	78.75	5	140	5	2000	0.25	1	56	20
1N5947B	82	77.9	86.1	4.6	160	4.6	2500	0.25	1	62.2	18
1N5948B	91	86.45	95.55	4.1	200	4.1	3000	0.25	1	69.2	16
1N5949B	100	95	105	3.7	250	3.7	3100	0.25	1	76	15
1N5950B	110	104.5	115.5	3.4	300	3.4	4000	0.25	1	83.6	13
1N5951B	120	114	126	3.1	380	3.1	4500	0.25	1	91.2	12
1N5952B	130	123.5	136.5	2.9	450	2.9	5000	0.25	1	98.8	11
1N5953B	150	142.5	157.5	2.5	600	2.5	6000	0.25	1	114	10
1N5954B	160	152	168	2.3	700	2.3	6500	0.25	1	121.6	9
1N5955B	180	171	189	2.1	900	2.1	7000	0.25	1	136.8	8
1N5956B	200	190	210	1.9	1900	1.9	9990	0.25	1	152	7

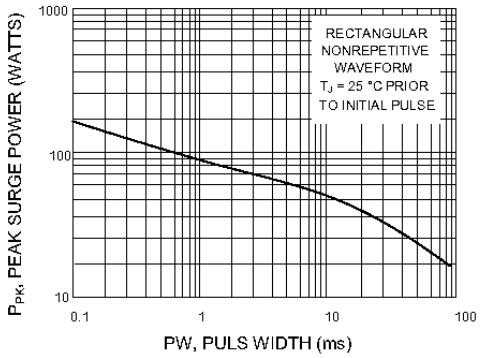
POWER TEMPERATURE DERATING CURVE



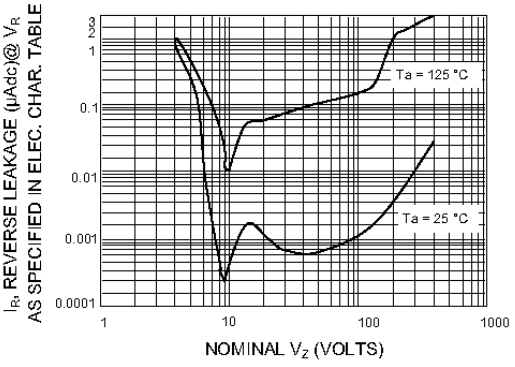
TYPICAL THERMAL RESPONSE L, LEAD LENTGTH = 3/8 INCH



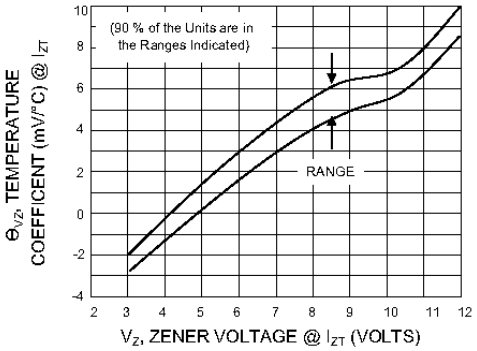
MAXIMUM SURGE POWER



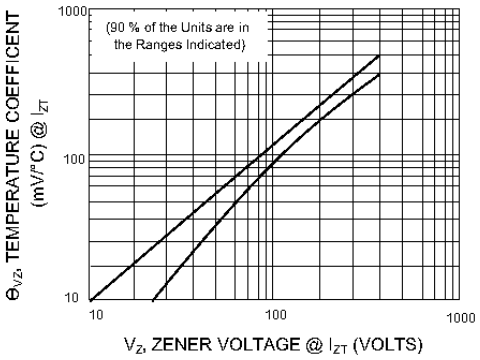
TYPICAL REVERSE LEAKAGE



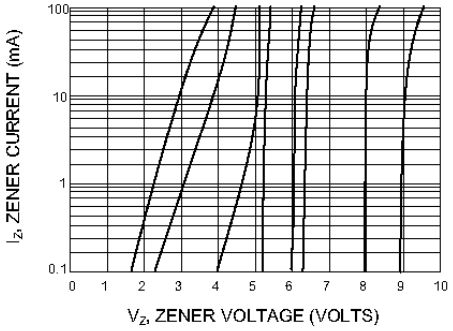
TEMPERATURE COEFFICIENT RANGES
UNITS TO 12 VOLTS



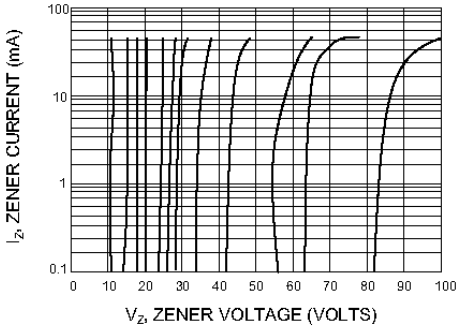
TEMPERATURE COEFFICIENT RANGES
UNITS 10 TO 400 VOLTS



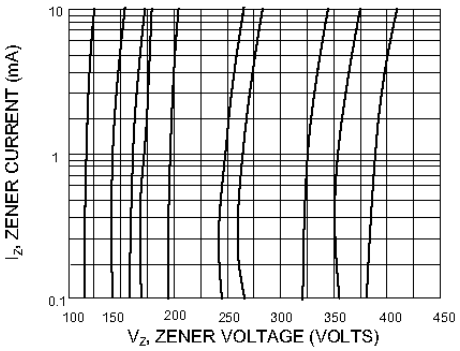
ZENER VOLTAGE VS. ZENER CURRENT
V_Z = 3.3 thru 10 VOLTS



ZENER VOLTAGE VS. ZENER CURRENT
V_Z = 12 thru 82 VOLTS



ZENER VOLTAGE VS. ZENER CURRENT
V_Z = 100 thru 400 VOLTS



TYPICAL THERMAL RESISTANCE