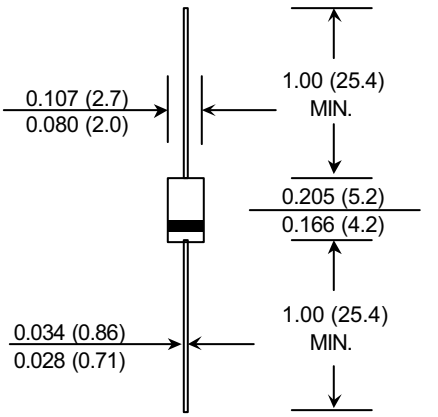
ZENER DIODE
1N5913B Thru 1N5956B
1.5 Watts

RFE INTERNATIONAL

RoHS

MECHANICAL DATA

- Case: DO-41, Plastic body, UL 94V-0 rated
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.339 grams



DO-41
Dimensions in inches and (millimeters)

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capactitive load, derate current by 20%

Item	Symbol	Conditions	Value	Max	Unit
Power Dissipation at T_{amb} = 25℃ Note 1	P_{tot}	--	1.5	--	W
Zener Current	I_Z	See Characteristics Table	--	--	mA
Maximum Junction Temperature	T_j	--	150	--	℃
Storage Temperature Range	T_{stg}	--	-55 to +150	--	℃
Thermal Resistance Junction to Lead Note 1	R_{OJL}	--	--	45	℃ / W
Forward voltage	V_F	I_F= 200mA	--	1.2	V

Note 1: Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted)

Part Number	Nominal Zener Voltage	Test Current	Maximum Dynamic Impedance		Maximum Knee Impedance	Maximum Reverse Leakage Current		Maximum Zener Current
	V_Z at I_{ZT}	I_{ZT}	Z_{ZT} at I_{ZT}	Z_{ZK} at I_{ZK}	Z_{ZK}	I_R	Test Voltage V_R	I_{ZM}
	V	mA	Ω	Ω	Ω	μA	V	mA
1N5913B	3.3	113.6	10	1	500	100	1	454
1N5914B	3.6	104.2	9	1	500	75	1	416
1N5915B	3.9	96.1	7.5	1	500	25	1	384
1N5916B	4.3	87.2	6	1	500	5	1	348
1N5917B	4.7	79.8	5	1	500	5	1.5	319
1N5918B	5.1	73.5	4	1	350	5	2	294
1N5919B	5.6	66.9	2	1	250	5	3	267
1N5920B	6.2	60.5	2	1	200	5	4	241
1N5921B	6.8	55.1	2.5	1	200	5	5.2	220
1N5922B	7.5	50	3	0.5	400	5	6	200
1N5923B	8.2	45.7	3.5	0.5	400	5	6.5	182
1N5924B	9.1	41.2	4	0.5	500	5	7	164

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ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted)

Part Number	Nominal Zener Voltage	Test Current	Maximum Dynamic Impedance		Maximum Knee Impedance	Maximum Reverse Leakage Current		Maximum Zener Current
	V_Z at I_{ZT}	I_{ZT}	Z_{ZT} at I_{ZT}	Z_{ZK} at I_{ZK}	Z_{ZK}	I_R	Test Voltage V_R	I_{ZM}
	V	mA	Ω	Ω	Ω	µA	V	mA
1N5925B	10	37.5	4.5	0.25	500	5	8	150
1N5926B	11	34.1	5.5	0.25	550	1	8.4	136
1N5927B	12	31.2	6.5	0.25	550	1	9.1	125
1N5928B	13	28.8	7	0.25	550	1	9.9	115
1N5929B	15	25	9	0.25	600	1	11.4	110
1N5930B	16	23.4	10	0.25	600	1	12.2	93
1N5931B	18	20.8	12	0.25	650	1	13.7	83
1N5932B	20	18.7	14	0.25	650	1	15.2	75
1N5933B	22	17	17.5	0.25	650	1	16.7	68
1N5934B	24	15.6	19	0.25	700	1	18.2	62
1N5935B	27	13.9	23	0.25	700	1	20.6	55
1N5936B	30	12.5	28	0.25	750	1	22.8	50
1N5937B	33	11.4	33	0.25	800	1	25.1	45
1N5938B	36	10.4	38	0.25	850	1	27.4	41
1N5939B	39	9.6	45	0.25	900	1	29.7	38
1N5940B	43	8.7	53	0.25	950	1	32.7	34
1N5941B	47	8	67	0.25	1000	1	35.8	31
1N5942B	51	7.3	70	0.25	1100	1	38.8	29
1N5943B	56	6.7	86	0.25	1300	1	42.6	26
1N5944B	62	6	100	0.25	1500	1	47.1	24
1N5945B	68	5.5	120	0.25	1700	1	51.2	22
1N5946B	75	5	140	0.25	2000	1	56	20
1N5947B	82	4.6	160	0.25	2500	1	62.2	18
1N5948B	91	4.1	200	0.25	3000	1	69.2	16
1N5949B	100	3.7	250	0.25	3100	1	76	15
1N5950B	110	3.4	300	0.25	4000	1	83.6	13
1N5951B	120	3.1	380	0.25	4500	1	91.2	12
1N5952B	130	2.9	450	0.25	5000	1	98.8	11
1N5953B	150	2.5	600	0.25	6000	1	114	10
1N5954B	160	2.3	700	0.25	6500	1	121.6	9
1N5955B	180	2.1	900	0.25	7000	1	136.8	8
1N5956B	200	1.9	1200	0.25	8000	1	152	7

Note: 1. No suffix indicates a ±20% tolerance on nominal VZ. Suffix A denotes a ±10% tolerance, B denotes a ±5% tolerance, C denotes a 2% tolerance, and D denotes a ±1% tolerance. Part number expressed above is ± 5% tolerance.
2. Zener voltage (VZ) is measured at TL=30°C and 90 seconds after application of dc current.
3. The zener impedance is derived from the 60 HZ ac voltage, which results when an ac current having an RMS value equal to 10% of the dc zener current (IZT or IZK) is superimposed on IZT or IZK. See MicroNote 202 for zener impedance variation with different operating currents.

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RATING & CHARACTERISTIC CURVES

Fig. 1 - Power Derating Curve

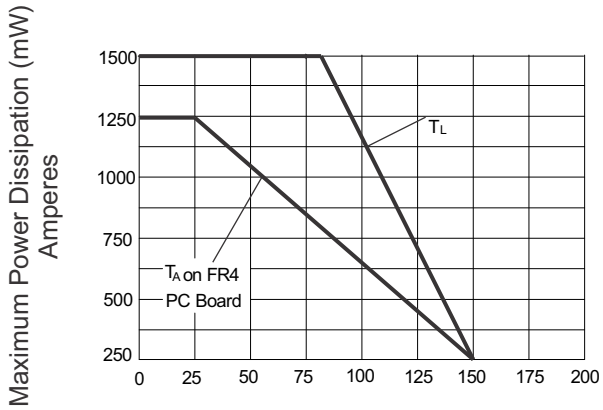


Fig. 2 - Transient Surge Capabilty

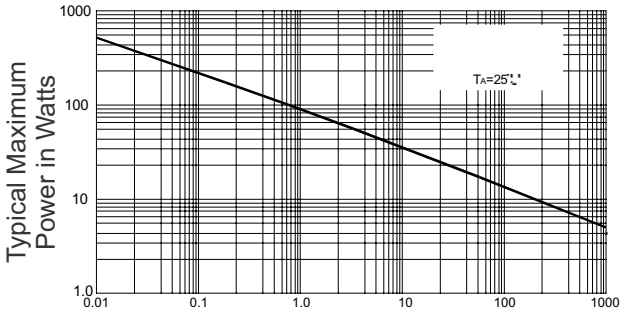
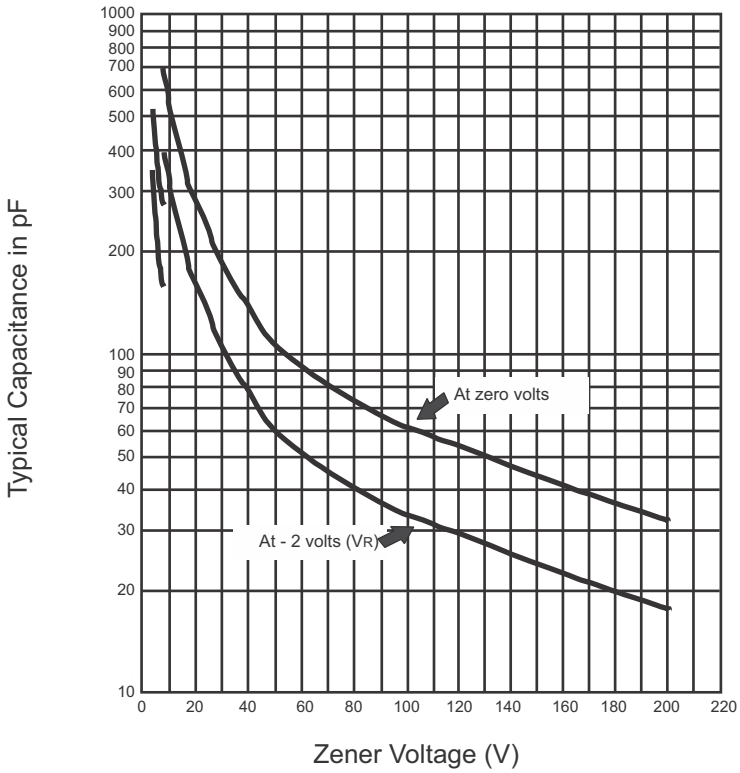


Fig. 3 - Capacitance vs Curve



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