



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

1N5920B
THRU
1N5956B

TECHNICAL SPECIFICATIONS OF GLASS PASSIVATED JUNCTION ZENER DIODES
VOLTAGE RANGE - 6.2 to 200 Volts POWER - 1.5 Watts

FEATURES

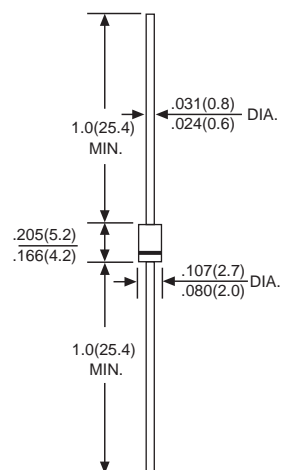
- * Voltage Range: 6.2V to 200V
- * Low leakage
- * Low inductance
- * High peak reverse power dissipation
- * Glass passivated junction
- * Build-in strain relief

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.33 gram approx.



DO-41



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

	SYMBOL	VALUE	UNITS
Maximum Power Dissipation @TL=75°C (Note 1)	P _{tot}	1.5	W
Peak pulse current with a 10/1000µs waveform	V _F	1.5	Volts
Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

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

Fig. 1 - POWER TEMPERATURE DERATING CURVE

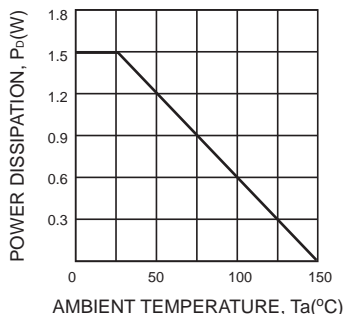
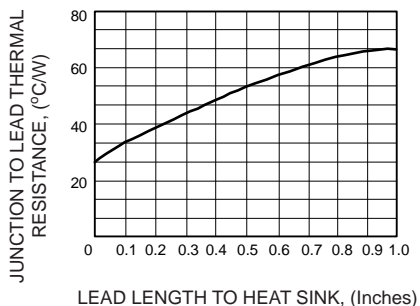


Fig. 2 - TYPICAL THERMAL RESISTANCE VERSUS LEAD LENGTH



RATING AND CHARACTERISTIC CURVES (1N5920B THRU 1N5956B)

TYPE	Nominal Zener Voltage $V_Z @ I_{ZT}$	Zener Test Current I_{ZT} mA	Maximum Zener Impedance		I_{ZK} mA	Maximum Reverse Leakage Current		Maximum Regulator Current I_{ZM} mA
			$Z_{ZT} @ I_{ZT}$ Ohms	$Z_{ZK} @ I_{ZK}$ Ohms		I_R μ A	@ V_R Volts	
1N5920B	6.2	60.5	2.0	200	1.00	2.5	4.0	240.0
1N5921B	6.8	55.1	2.5	200	1.00	2.5	5.2	220.0
1N5922B	7.5	50.0	3.0	400	0.50	2.5	6.0	200.0
1N5923B	8.2	45.7	3.5	400	0.50	2.5	6.5	182.0
1N5924B	9.1	41.2	4.0	500	0.50	2.5	7.0	164.0
1N5925B	10.0	37.5	4.5	500	0.25	2.5	8.0	150.0
1N5926B	11.0	34.1	5.5	550	0.25	0.5	8.4	136.0
1N5927B	12.0	31.2	6.5	550	0.25	0.5	9.1	125.0
1N5928B	13.0	28.8	7.0	550	0.25	0.5	9.9	115.0
1N5929B	15.0	25.0	9.0	600	0.25	0.5	11.4	100.0
1N5930B	16.0	23.4	10.0	600	0.25	0.5	12.2	93.0
1N5931B	18.0	20.8	12.0	650	0.25	0.5	13.7	83.0
1N5932B	20.0	18.7	14.0	650	0.25	0.5	15.2	75.0
1N5933B	22.0	17.0	17.5	650	0.25	0.5	16.7	68.0
1N5934B	24.0	15.6	19.0	700	0.25	0.5	18.2	62.0
1N5935B	27.0	13.9	23.0	700	0.25	0.5	20.6	55.0
1N5936B	30.0	12.5	26.0	750	0.25	0.5	22.8	50.0
1N5937B	33.0	11.4	33.0	800	0.25	0.5	25.1	45.0
1N5938B	36.0	10.4	38.0	850	0.25	0.5	27.4	41.0
1N5939B	39.0	9.6	45.0	900	0.25	0.5	29.7	38.0
1N5940B	43.0	8.7	53.0	950	0.25	0.5	32.7	34.0
1N5941B	47.0	8.0	67.0	1000	0.25	0.5	35.8	31.0
1N5942B	51.0	7.3	70.0	1100	0.25	0.5	38.8	29.0
1N5943B	56.0	6.7	86.0	1300	0.25	0.5	42.6	26.0
1N5944B	62.0	6.0	100.0	1500	0.25	0.5	47.1	24.0
1N5945B	68.0	5.5	120.0	1700	0.25	0.5	51.7	22.0
1N5946B	75.0	5.0	140.0	2000	0.25	0.5	56.0	20.0
1N5947B	82.0	4.6	160.0	2500	0.25	0.5	62.2	18.0
1N5948B	91.0	4.1	200.0	3000	0.25	0.5	69.2	16.0
1N5949B	100.0	3.7	250.0	3100	0.25	0.5	76.0	15.0
1N5950B	110.0	3.4	300.0	4000	0.25	0.5	83.6	13.0
1N5951B	120.0	3.1	380.0	4500	0.25	0.5	91.2	12.0
1N5952B	130.0	2.9	450.0	5000	0.25	0.5	98.8	11.0
1N5953B	150.0	2.5	600.0	6000	0.25	0.5	114.0	10.0
1N5954B	160.0	2.3	700.0	6500	0.25	0.5	121.6	9.0
1N5955B	180.0	2.1	900.0	7000	0.25	0.5	136.8	8.0
1N5956B	200.0	1.9	1900.0	8000	0.25	0.5	152.0	7.0

NOTE: Standard Zener Voltage Tolerance \pm 5%

Fig. 3 - TEMPERATURE COEFFICIENTS v.s. ZENER VOLTAGE

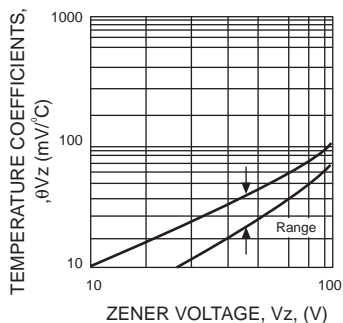
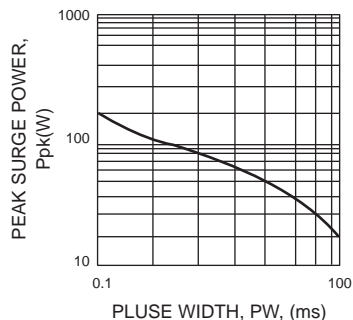


Fig. 4 - MAXIMUM SURGE POWER



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