

1N5918BP~1N5956BP

ZENER DIODES

VOLTAGE 5.1 to 200 Volt **POWER** 1.5 Watt

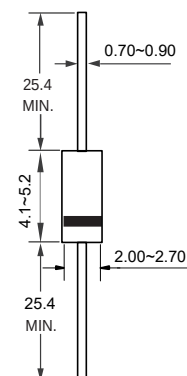
DO-41 Unit:mm

FEATURES

- Flat Handling Surface for Accurate Placement
- Glass Passivated Junction
- Low Profile Package
- Low Zener Impedance
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	Value	Unit
Forward Voltage @ $I_F = 200\text{mA}$	V_F	1.5	V
Power Dissipation	P_d	1.5	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	83	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~+150	°C

1N5918B3~1N5956B3

ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER	ZENER VOLTAGE VZ (1)	TEST CURRENT IZT	MAXIMUM DYNAMIC IMPEDANCE ZZT @IZT	KNEE CURRENT IZK	KNEE IMPEDANCE ZZK	MAXIMUM REVERSE CURRENT IR	REVERSE VOLTAGE VR
	VOLTS	mA	OHMS	mA	OHMS	μA	VOLTS
1N5918BP	5.1	73.5	4	1	350	5.0	2
1N5919BP	5.6	66.9	2	1	250	5.0	3
1N5920BP	6.2	60.5	2	1	200	5.0	4
1N5921BP	6.8	55.1	2.5	1	200	5.0	5.2
1N5922BP	7.5	50	3	0.5	400	5.0	6
1N5923BP	8.2	45.7	3.5	0.5	400	5.0	6.5
1N5924BP	9.1	41.2	4	0.25	500	5.0	7
1N5925BP	10	37.5	4.5	0.25	500	5.0	8
1N5926BP	11	34.1	5.5	0.25	550	1.0	8.4
1N5927BP	12	31.2	6.5	0.25	550	1.0	9.1
1N5928BP	13	28.8	7	0.25	550	1.0	9.9
1N5929BP	15	25	9	0.25	600	1.0	11.4
1N5930BP	16	23.4	10	0.25	600	1.0	12.2
1N5931BP	18	20.8	12	0.25	650	1.0	13.7
1N5932BP	20	18.7	14	0.25	650	1.0	15.2
1N5933BP	22	17	17.5	0.25	650	1.0	16.7
1N5934BP	24	15.6	19	0.25	700	1.0	18.2
1N5935BP	27	13.9	23	0.25	700	1.0	20.6
1N5936BP	30	12.5	28	0.25	750	1.0	22.8
1N5937BP	33	11.4	33	0.25	800	1.0	25.1
1N5938BP	36	10.4	38	0.25	850	1.0	27.4
1N5939BP	39	9.6	45	0.25	900	1.0	29.7
1N5940BP	43	8.7	53	0.25	950	1.0	32.7
1N5941BP	47	8	67	0.25	1000	1.0	35.8
1N5942BP	51	7.3	70	0.25	1100	1.0	38.8
1N5943BP	56	6.7	86	0.25	1300	1.0	42.6
1N5944BP	62	6	100	0.25	1500	1.0	47.1
1N5945BP	68	5.5	120	0.25	1700	1.0	51.7
1N5946BP	75	5	140	0.25	2000	1.0	56
1N5947BP	82	4.6	160	0.25	2500	1.0	62.2
1N5948BP	91	4.1	200	0.25	3000	1.0	69.2
1N5949BP	100	3.7	250	0.25	3100	1.0	76
1N5950BP	110	3.4	300	0.25	4000	1.0	83.6
1N5951BP	120	3.1	380	0.25	4500	1.0	91.2
1N5952BP	130	2.9	450	0.25	5000	1.0	98.8
1N5953BP	150	2.5	600	0.25	6000	1.0	114
1N5954BP	160	2.3	700	0.25	6500	1.0	121.6
1N5955BP	180	2.1	900	0.25	7000	1.0	136.8
1N5956BP	200	1.9	1200	0.25	8000	1.0	152

1) TOLERANCE AND VOLTAGE DESIGNATION - The type numbers listed indicate a tolerance of +/- 5%.

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RATING AND CHARACTERISTIC CURVES

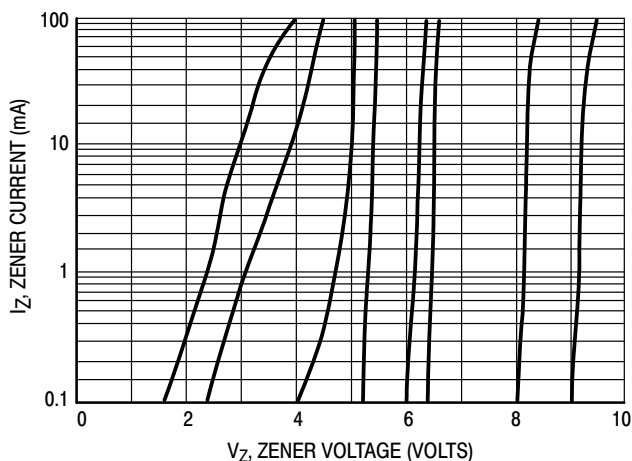


Figure 1. V_Z – 5.1 thru 10 Volts

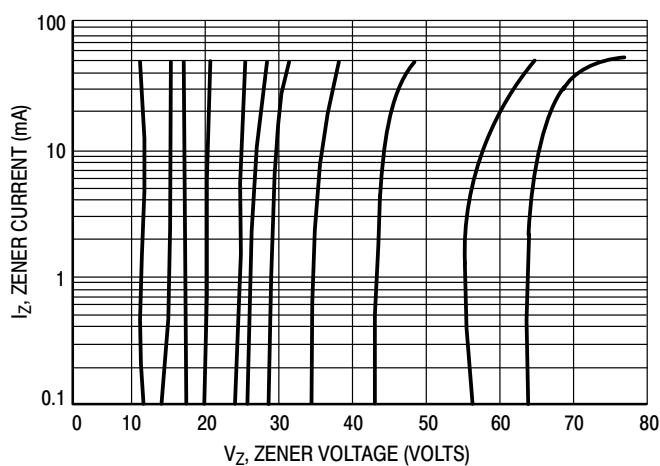


Figure 2. V_Z = 12 thru 68 Volts

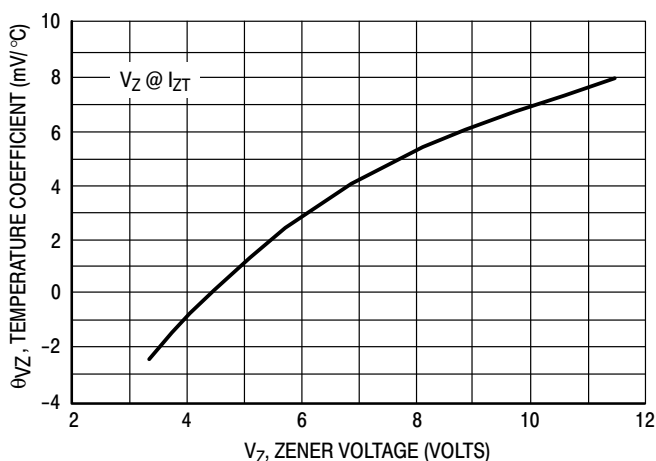


Figure 3. Zener Voltage – 5.1 to 12 Volts

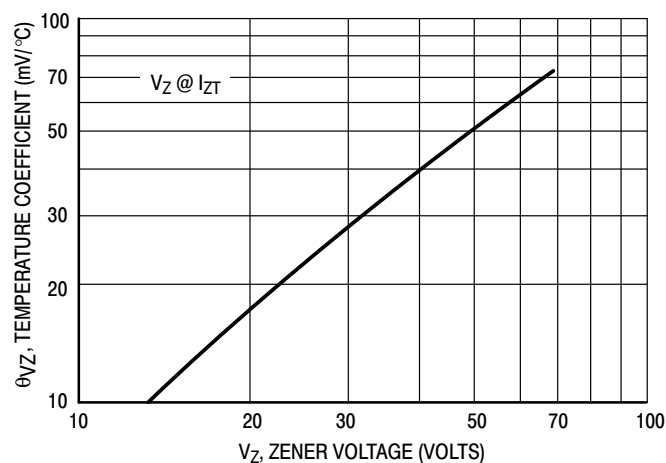


Figure 4. Zener Voltage – 12 to 68 Volts

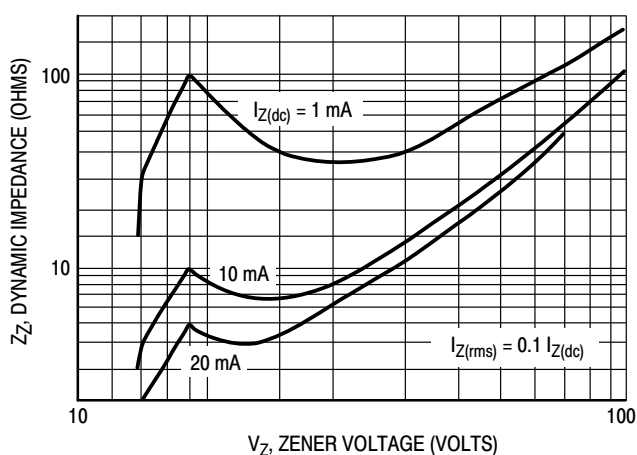


Figure 5. Effect of Zener Voltage

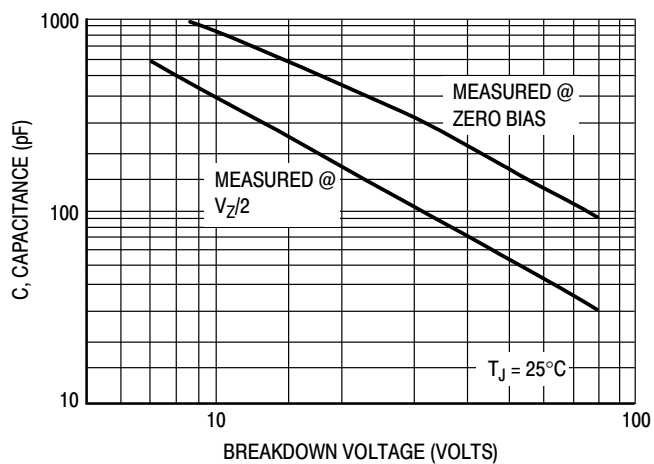


Figure 6. Capacitance Curve

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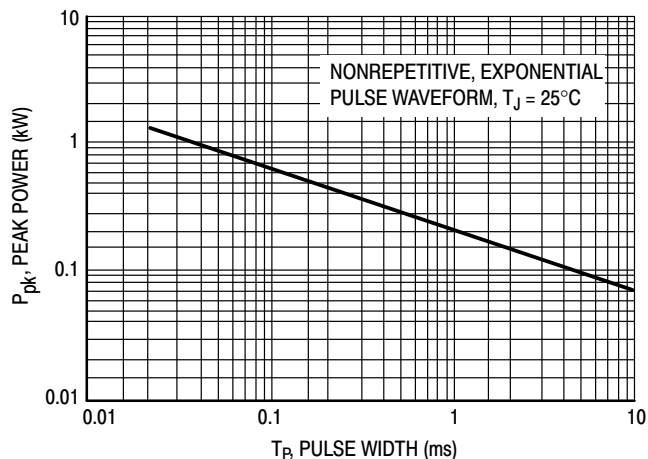


Figure 7. Typical Pulse Rating Curve

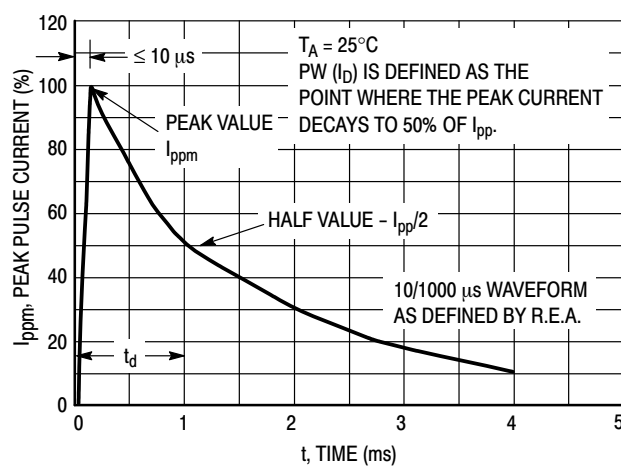


Figure 8. Pulse Waveform

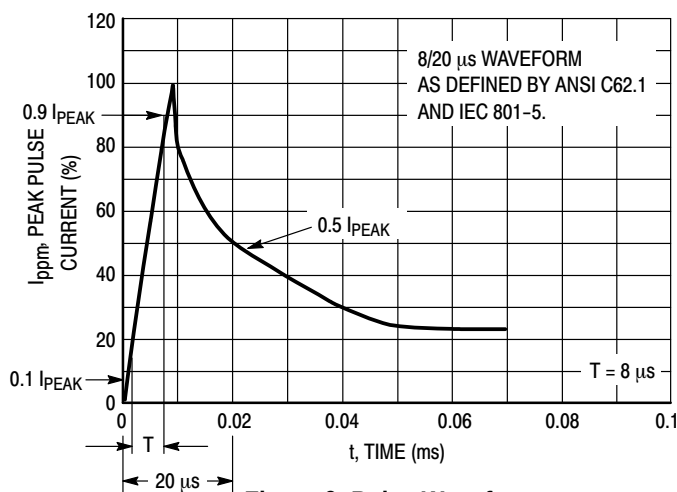


Figure 9. Pulse Waveform

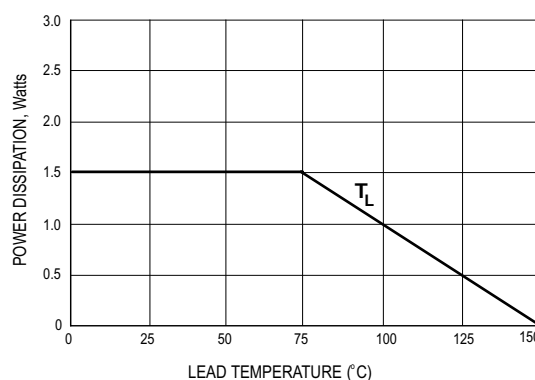


Figure 10. Steady state power derating

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ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
1N5918BP~1N5956BP	D0-41	13 Inch	5000