

1N5817 THRU 1N5819

1 AMPERE SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 to 40 Volts CURRENT - 1.0 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- 1.0 ampere operation at $T_L=90^{\circ}\text{C}$ with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications

MECHANICAL DATA

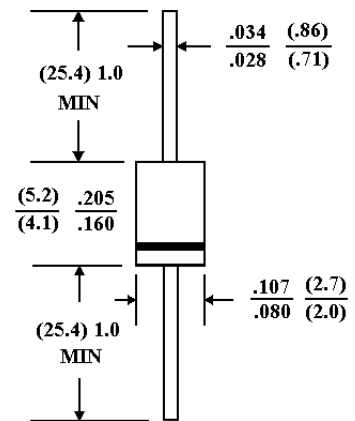
Case: Molded plastic, JECEC DO-41

Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color Band denotes cathode

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

DO-41

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

	1N5817	1N5818	1N5819	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	V
Maximum RMS Voltage	14	21	28	V
Maximum DC Blocking Voltage	20	30	40	V
Maximum Average Forward Rectified Current 3/8" Lead Length $T_L=90^{\circ}\text{C}$	1.0			A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JECEC method) $T_L=70^{\circ}\text{C}$	25			A
Maximum Forward Voltage at 1.0A DC	.45	.55	.60	V
Maximum Forward Voltage at 3.0A DC	.75	.875	.90	V
Maximum Average DC Reverse Current $T_A=25^{\circ}\text{C}$ at Rated Reverse Voltage $T_A=100^{\circ}\text{C}$	0.5 10			mA mA
Typical Junction capacitance (Note 1)	110			pF
Typical Thermal Resistance(Note 2)	80			$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range	-50 to +125			$^{\circ}\text{C}$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Thermal Resistance Junction to Ambient



RATING AND CHARACTERISTIC CURVES

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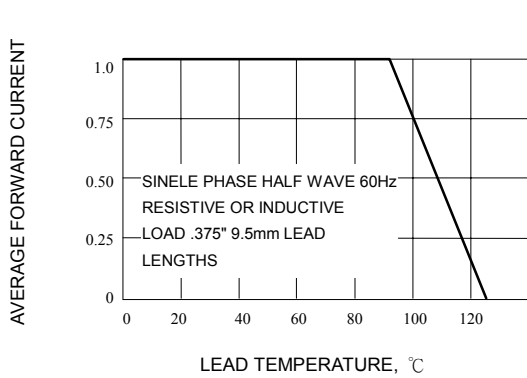


Fig. 1-FORWARD CURRENT DERATING CURVEE

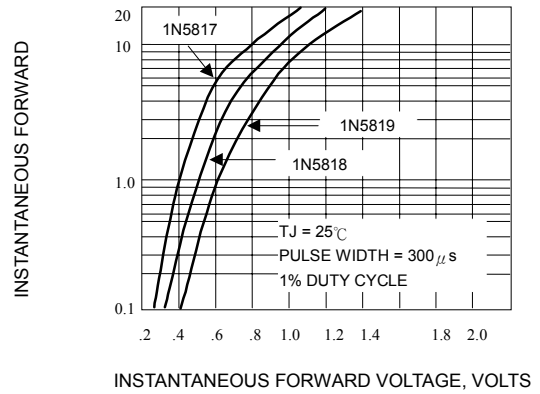


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

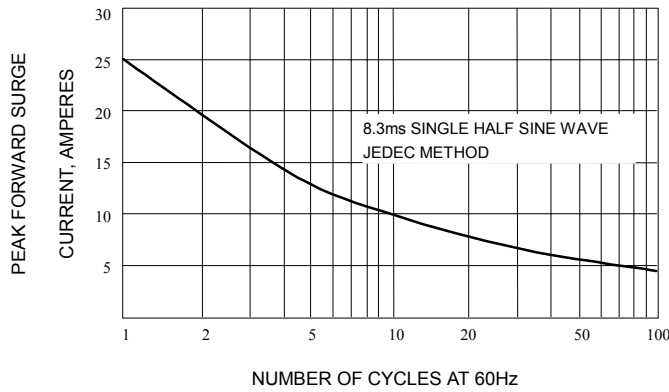


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

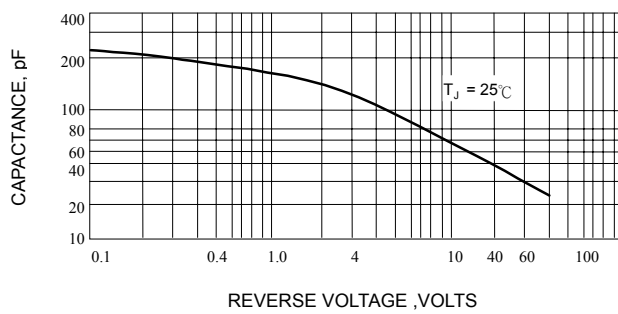


Fig. 4-TYPICAL JUNCTION CAPACITANCE