



# 1N5817 THRU 1N5819

1 AMPERE SCHOTTKY BARRIER RECTIFIER  
VOLTAGE - 20 to 40 Volts CURRENT - 1.0 Ampere

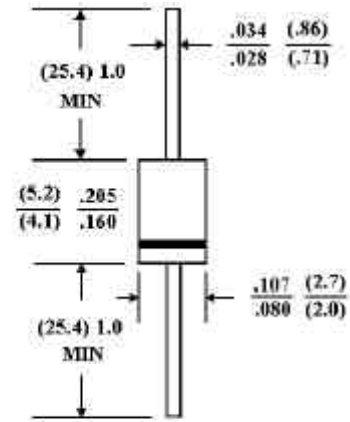
## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 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

DO-41

## MECHANICAL DATA

- Case: Molded plastic, JEDEC 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



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $25^\circ\text{C}$  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 (JEDEC 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	0.5			mA
$T_A=100^\circ\text{C}$	10			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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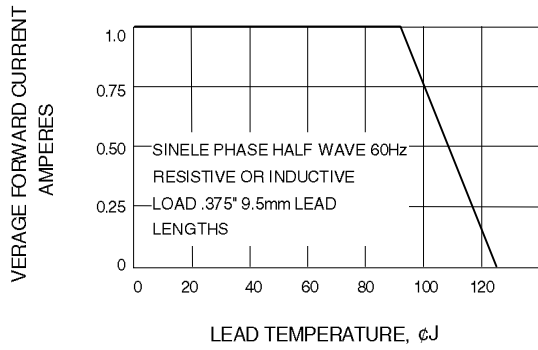


Fig. 1-FORWARD CURRENT DERATING CURVEE

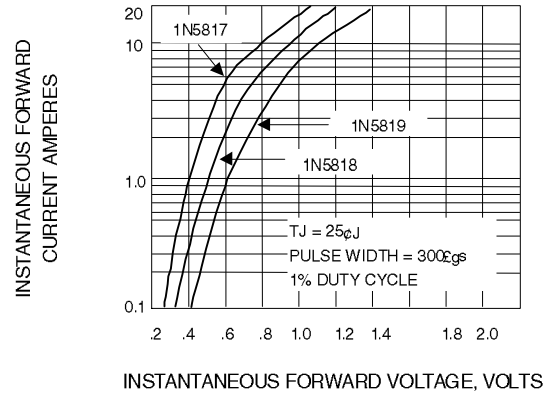


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

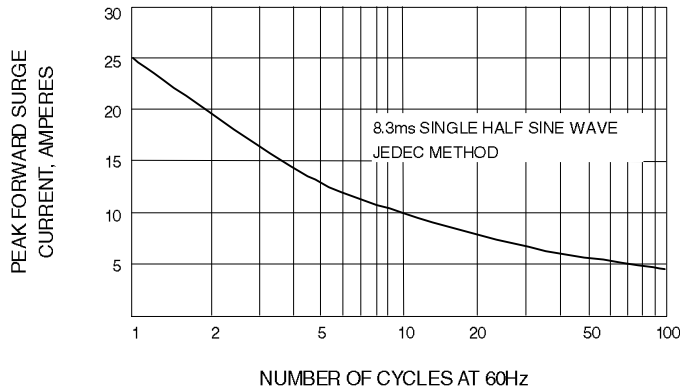


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

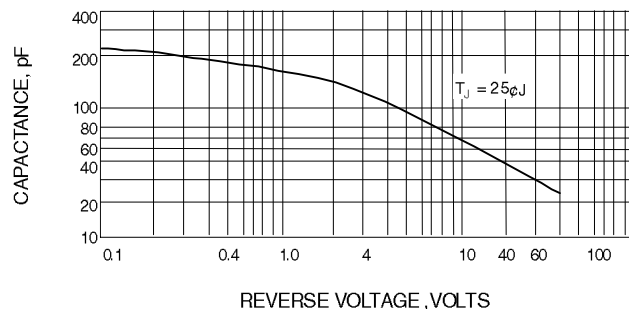


Fig. 4-TYPICAL JUNCTION CAPACITANCE