

SCHOTTKY BARRIER RECTIFIER
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

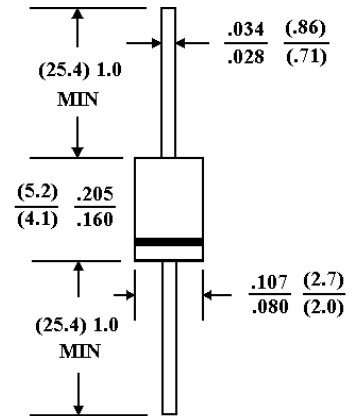
Case: Molded plastic, JECEC DO-41

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

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RATING AND CHARACTERISTIC CURVES

1N5817 THRU 1N5819

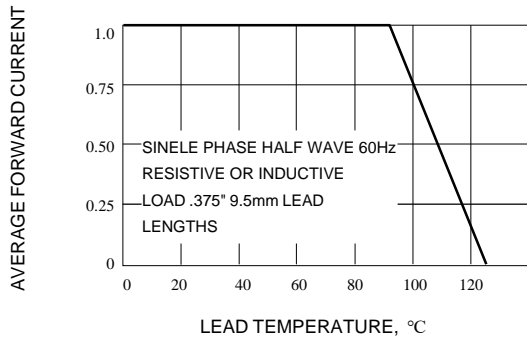


Fig. 1-FORWARD CURRENT DERATING CURVEE

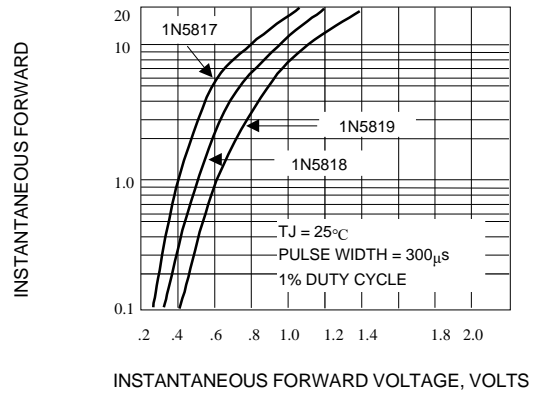


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

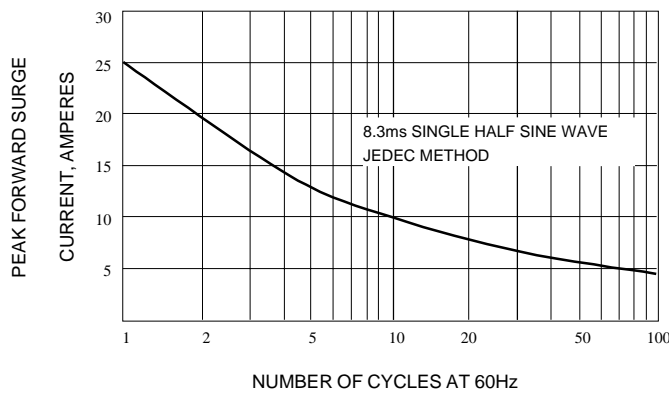


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

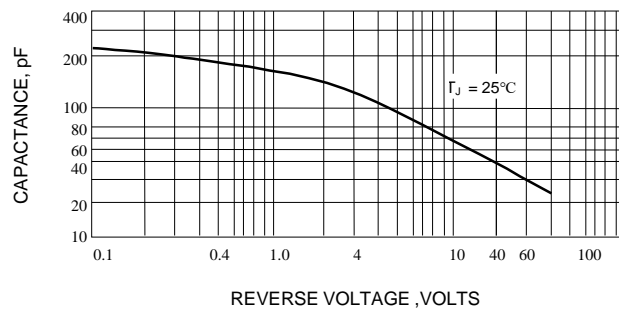


Fig. 4-TYPICAL JUNCTION CAPACITANCE