

1N5817 THRU 1N5819

1 AMPERE SCHOTTKY BARRIER RECTIFIERS
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 ampere operation at $T_L = 90^\circ\text{C}$ with no thermal runaway.
- Exceeds environmental standards of MIL-S-19500/22B
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications

MECHANICAL DATA

Case: Molded plastic. JEDEC DO-41

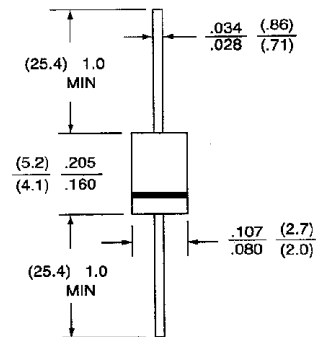
Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color band denotes cathode

Mounting position: Any

Weight: 0.012 ounce, 0.3 gram

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, 60 Hz, 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, 8.3 ms 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 | 0.5 | | | mA |
| at Peak Reverse Voltage $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$ | 10 | | | mA |
| Typical Junction Capacitance (Note 1) | 110 | | | pF |
| Typical Thermal Resistance (Note 2) | 80 | | | $^\circ\text{C/W}$ |
| Operating Temperature Range 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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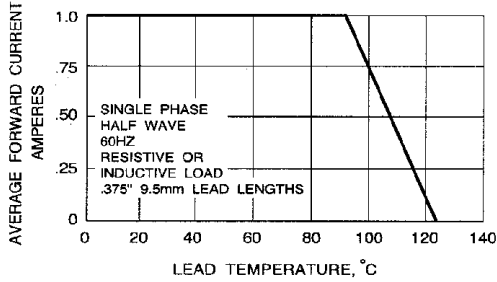


Fig. 1 - FORWARD CURRENT DERATING CURVE

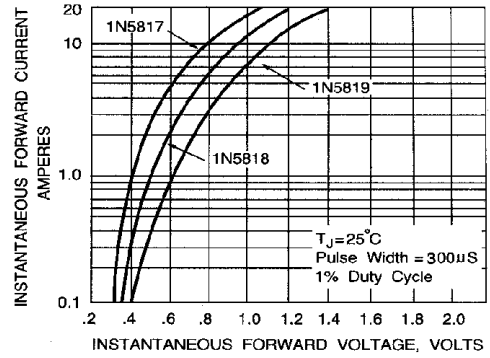


Fig. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

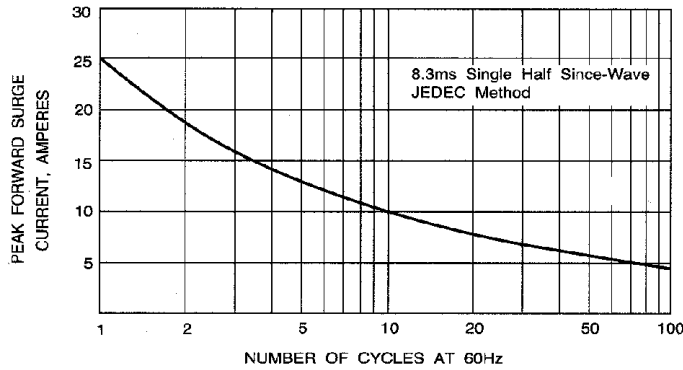


Fig. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

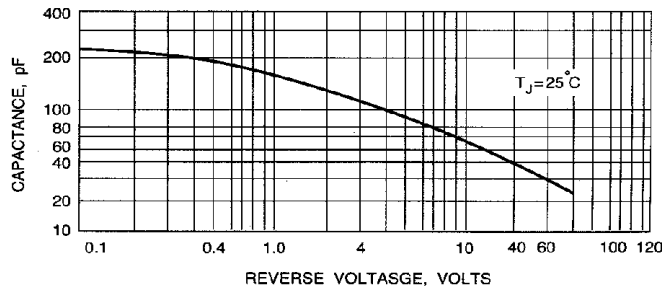


Fig. 4 - TYPICAL JUNCTION CAPACITANCE