

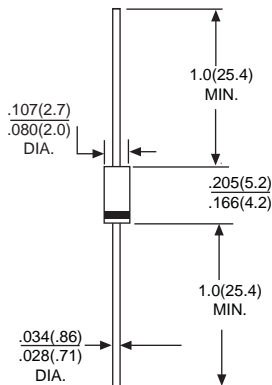


# 1N5817 THRU 1N5819

**1.0 AMP. SCHOTTKY BARRIER RECTIFIERS**

Voltage Range  
20 to 40 Volts  
Current  
1.0 Amperes

## DO-41



Dimensions in inches and (millimeters)

### Features

- \*Low forward voltage drop
- \*High current capability
- \*High reliability
- \*High surge current capability

### Mechanical Data

- \*Cases: Molded plastic DO-41
- \*Epoxy: UL 94V-O rate flame retardant
- \*Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- \*Polarity: Color band denotes cathode end
- \*High temperature soldering guaranteed: 250°C/10 seconds/.375" (9.5mm) lead lengths at 5 lbs. (2.3kg) tension
- \*Weight: 0.33 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

| Type Number   |                                    | 1N5817      | 1N5818 | 1N5819 | UNITS    |
|---|------------------------------------|-------------|--------|--------|----------|
| Maximum Repetitive Peak Reverse Voltage   | V <sub>RRM</sub>                   | 20          | 30     | 40     | V        |
| Maximum RMS Voltage   | V <sub>RMS</sub>                   | 14          | 21     | 28     | V        |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>                    | 20          | 30     | 40     | V        |
| Maximum Average Forward Rectified Current<br>.375" (9.5mm) Lead Length @ T <sub>L</sub> = 90°C              | I <sub>F(AV)</sub>                 | 1.0         |        |        | A        |
| Peak Forward Surge Current, 8.3 ms Single<br>Half Sine-wave Superimposed on Rated Load<br>(JEDEC method)    | I <sub>FSM</sub>                   | 25          |        |        | A        |
| Maximum Instantaneous Forward Voltage<br>@ 1.0A   | V <sub>F</sub>                     | 0.45        | 0.550  | 0.600  | V        |
| Maximum Instantaneous Forward Voltage<br>@ 3.0A   | V <sub>F</sub>                     | 0.750       | 0.875  | 0.900  | V        |
| Maximum DC Reverse Current @ T <sub>A</sub> = 25°C<br>at Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C | I <sub>R</sub>                     | 1.0<br>10   |        |        | mA<br>mA |
| Typical Thermal Resistance  | R <sub>JA</sub><br>R <sub>JC</sub> | 50<br>12    |        |        | °C/W     |
| Typical Junction Capacitance (Note 2)   | C <sub>J</sub>                     | 110         |        |        | pF       |
| Operating Temperature Range   | T <sub>J</sub>                     | -55 to +125 |        |        | °C       |
| Storage Temperature Range   | T <sub>STG</sub>                   | -55 to +150 |        |        | °C       |

NOTES: 1. Thermal Resistance from Junction to Ambient Vertical PC Board Mounting, 0.375" (9.5mm) Lead Length.  
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

# RATING AND CHARACTERISTIC CURVES 1N5817 THRU 1N5819



FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

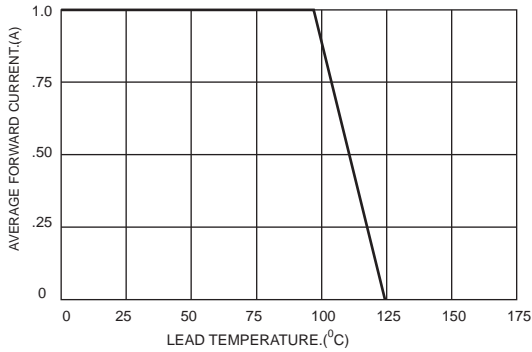


FIG.2-TYPICAL JUNCTION CAPACITANCE

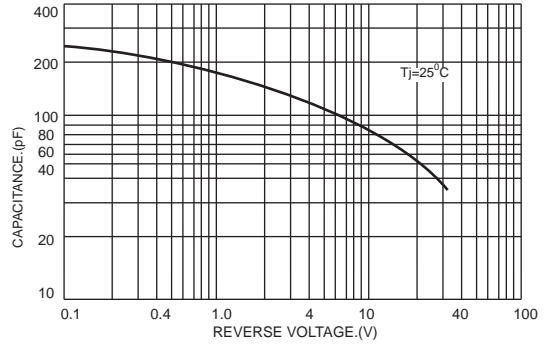


FIG.3-TYPICAL FORWARD CHARACTERISTICS

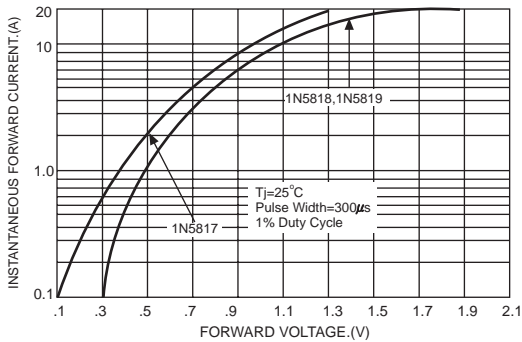


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

