



1N5817 THRU 1N5819

1 A Schottky Barrier Rectifiers

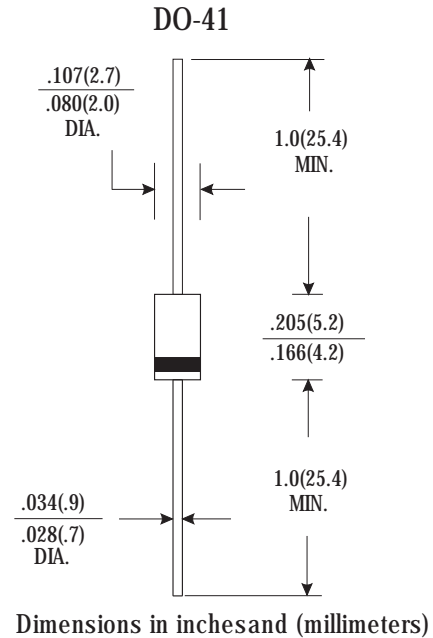
Voltage Range 20 to 100V
Current 1.0 Ampere

Features

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

Mechanical Data

- * Case: Molded plastic
- * Epoxy: UL 94V-0 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 Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

| Type Number | 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 .375" (9.5mm) Lead Length @ T _J =90°C | 1.0 | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sinewave -Superimposed on Rated Load (JEDEC method) | 25 | | | A |
| Maximum Instantaneous Forward Voltage @ 1.0A | 0.45 | 0.550 | 0.600 | V |
| Maximum Instantaneous Forward Voltage @ 3.0A | 0.750 | 0.875 | 0.900 | V |
| Maximum DC Reverse Current @ T _A =25°C | 1.0 | | | mA |
| At Rated DC Blocking Voltage @ T _A =100°C | 10 | | | mA |
| Typical Thermal Resistance (Note 1) R _{JA} | 50 | | | °C/W |
| Typical Junction Capacitance (Note 2) | 110 | | | pF |
| Operating Temperature Range T _J | -55 to +125 | | | °C |
| Storage Temperature Range T _{STG} | -55 to +125 | | | °C |

Notes:

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



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RATINGS AND CHARACTERISTIC CURVES (1N5817 THRU 1N5819)

FIG.1-MAXIMUM FORWARD CURRENT DERATING CURVE

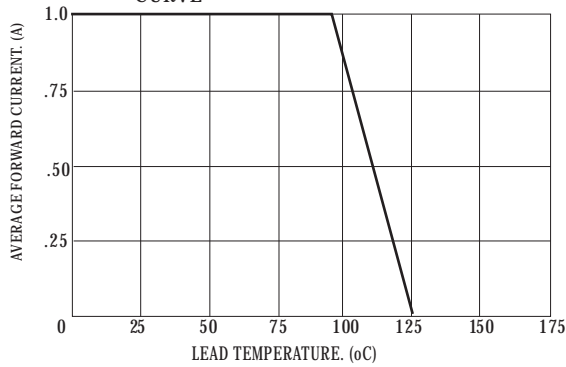


FIG.2-TYPICAL JUNCTION CAPACITANCE

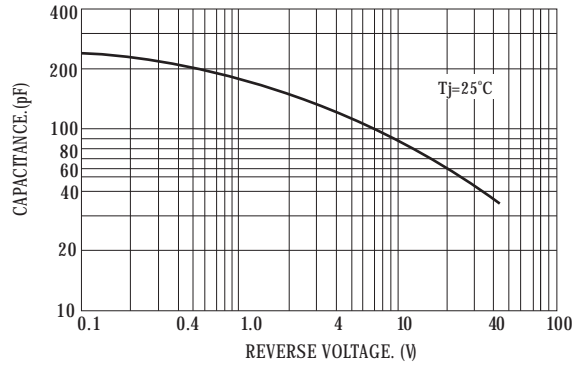


FIG.3-TYPICAL FORWARD CHARACTERISTICS

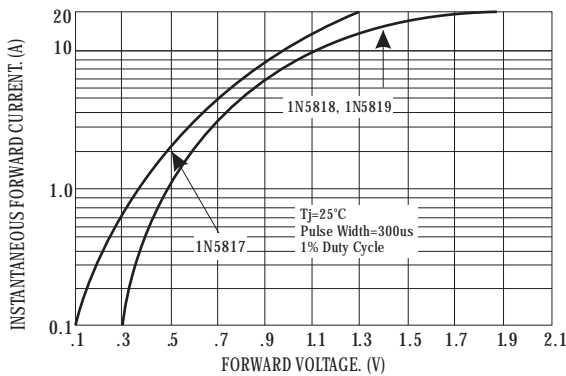


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

