

1N5817 THRU 1N5819

SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 TO 40V

CURRENT: 1.0A



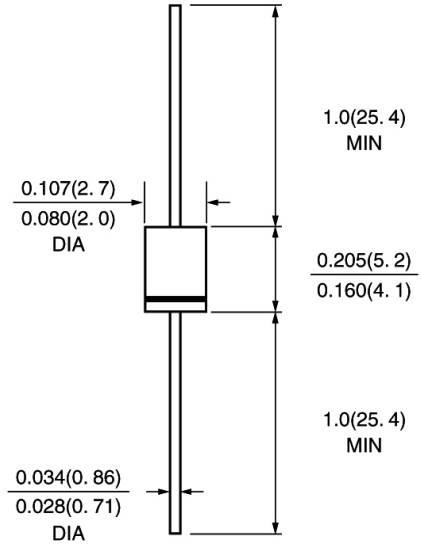
FEATURE

High current capability, Low forward voltage drop
Low power loss, high efficiency
High surge capability
High temperature soldering guaranteed
250°C /10sec/0.375" lead length at 5 lbs tension

MECHANICAL DATA

Terminal: Plated axial leads solderable per
MIL-STD 202E, method 208C
Case: Molded with UL-94 Class V-0 recognized Flame
Retardant Epoxy
Polarity: color band denotes cathode
Mounting position: any

DO-41 \ DO-204AL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

| | SYM BOL | 1N 5817 | 1N 5818 | 1N 5819 | units |
|--|--------------------------------------|-------------|------------|------------|----------|
| Maximum Recurrent Peak Reverse Voltage | V _{rrm} | 20 | 30 | 40 | V |
| Maximum RMS Voltage | V _{rms} | 14 | 21 | 28 | V |
| Maximum DC blocking Voltage | V _{dc} | 20 | 30 | 40 | V |
| Maximum Average Forward Rectified Current 3/4" lead length at T _L =90°C | I _{f(av)} | 1.0 | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | I _{fsm} | 25.0 | | | A |
| Maximum Forward Voltage at 1.0A DC | V _f | 0.45 | 0.55 | 0.60 | V |
| Maximum Forward Voltage at 3.1A DC | V _f | 0.75 | 0.875 | 0.90 | V |
| Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C | I _r | 1.0 10.0 | | | mA mA |
| Typical Junction Capacitance (Note 1) | C _j | 110 | | | pF |
| Typical Thermal Resistance (Note 2) | R(ja) | 50 | | | °C /W |
| Storage and Operating Junction Temperature | T _{stg} , T _j | -65 to +125 | | | °C |

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient at 0.5" lead length, vertical P.C. Board Mounted

Fig. 1 - Forward Current Derating Curve

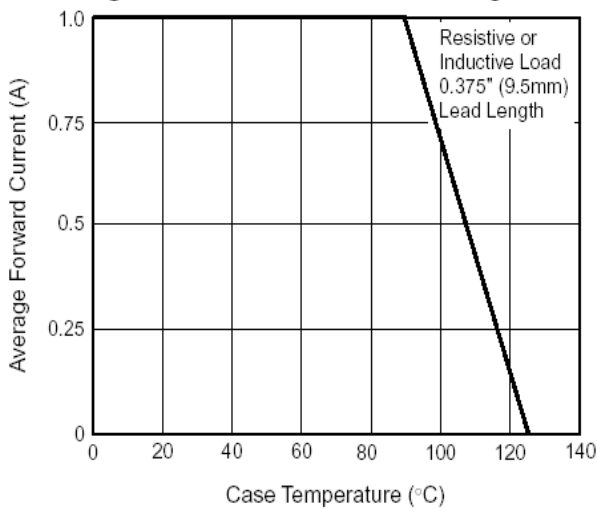


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

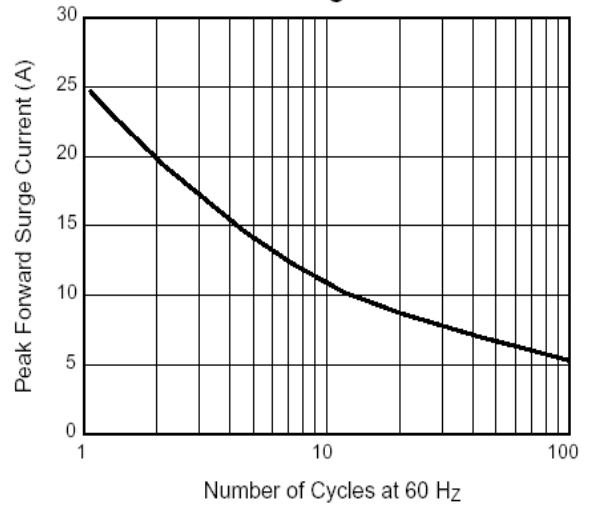


Fig. 3 - Typical Instantaneous Forward Characteristics

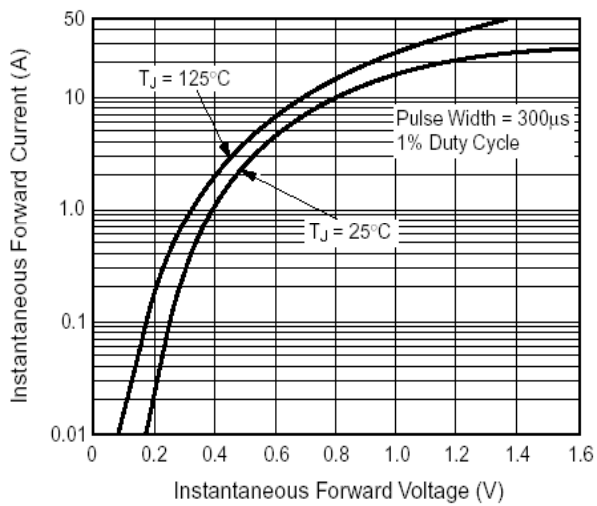


Fig. 4 - Typical Reverse Characteristics

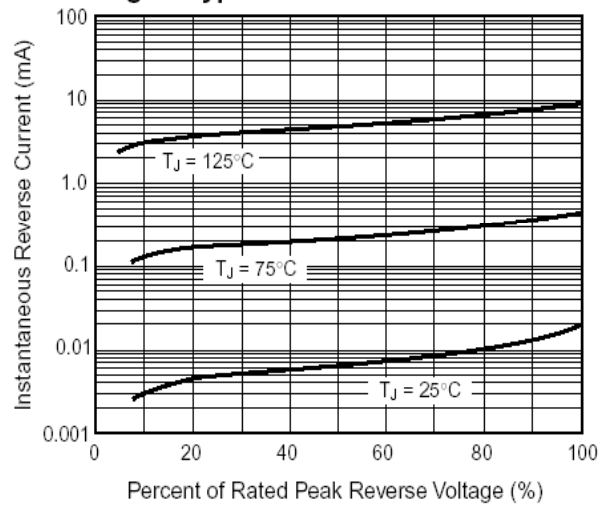


Fig. 5 - Typical Junction Capacitance

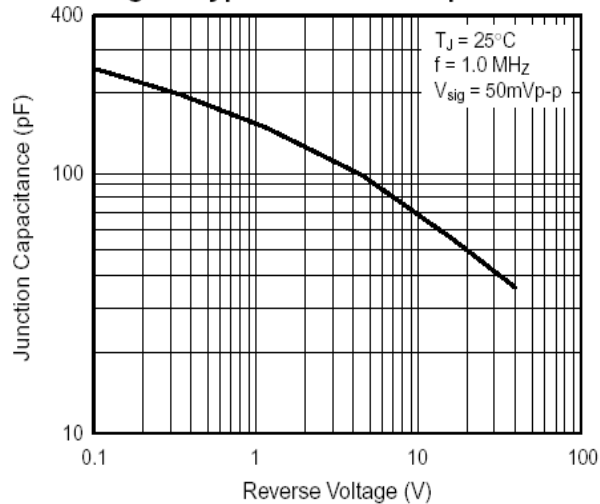


Fig. 6 - Typical Transient Thermal Impedance

