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Jameco Part Number 177949

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 40 Volts CURRENT 1.0 Ampere

FEATURES

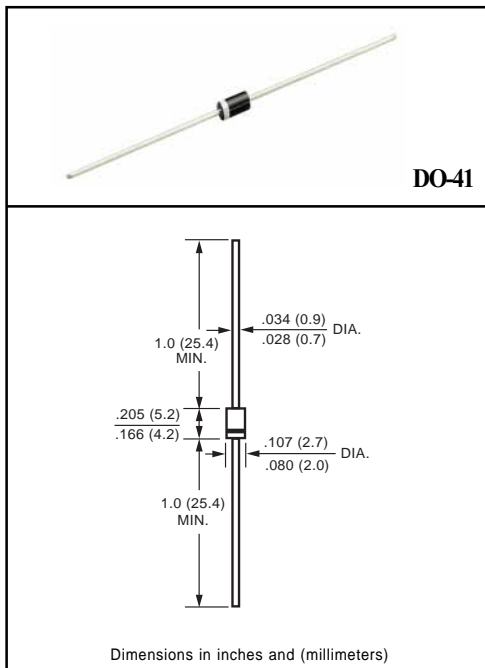
- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High reliability
- * High surge capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.33 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | 1N5817 | 1N5818 | 1N5819 | UNITS |
|--|----------|--------------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 20 | 30 | 40 | Volts |
| Maximum RMS Voltage | VRMS | 14 | 21 | 28 | Volts |
| Maximum DC Blocking Voltage | Vbc | 20 | 30 | 40 | Volts |
| Maximum Average Forward Rectified Current .375" (9.5mm) lead length at TL = 90°C | IO | 1.0 | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 25 | | | Amps |
| Typical Thermal Resistance (Note) 1 | RθJA | 80 | | | °C/W |
| Typical Junction Capacitance (Note 2) | CJ | 110 | | | pF |
| Storage Operating Temperature Range | TJ, TSTG | -55 to + 150 | | | °C |

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | 1N5817 | 1N5818 | 1N5819 | UNITS |
|---|--------|--------------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 1.0A DC | VF | .45 | .55 | .60 | Volts |
| Maximum Forward Voltage at 3.1A DC | VF | .75 | .875 | .90 | Volts |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | IR | @ TA = 25°C | | | mAmps |
| | | @ TA = 100°C | | | |
| | | 1.0 | | | |
| | | 10 | | | |

NOTES : 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (1N5817 THRU 1N5819)

FIG. 1 -- TYPICAL FORWARD CURRENT DERATING CURVE

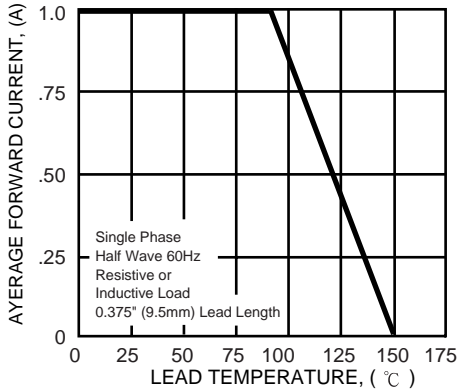


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

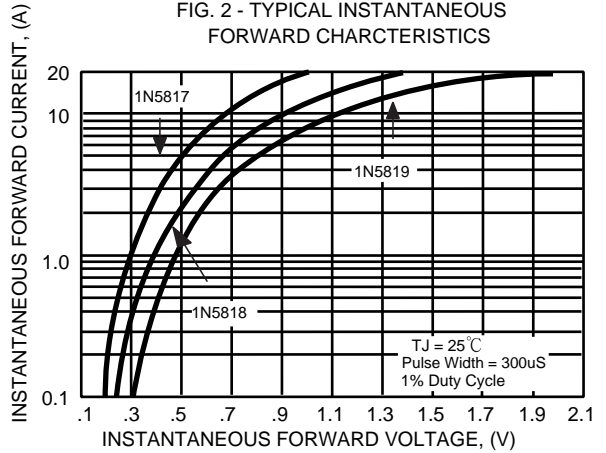


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

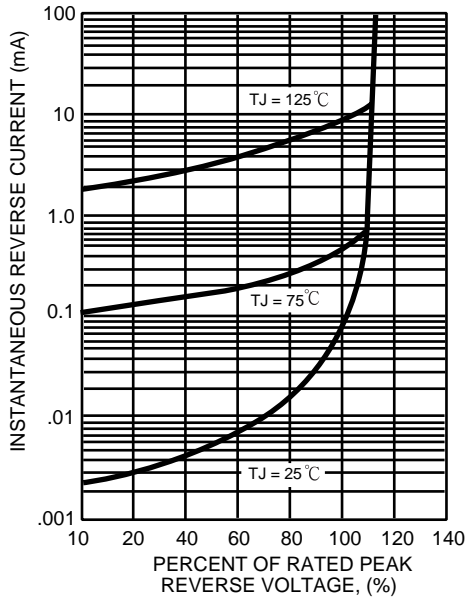


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

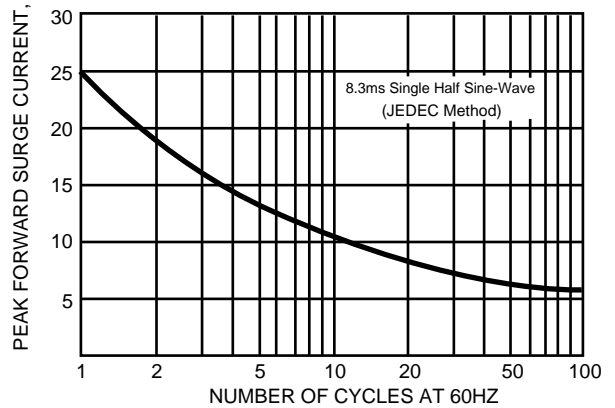


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

