# 1N5817 THRU 1N5819

PLASTIC SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 40 Volts  CURRENT 1.0 Ampere

## FEATURES

◆Low switching noise

◆Low forward voltage drop

◆High forward surge capability

◆High reliability

◆High temperature soldering guaranteed

◆260℃/10 seconds,0.375 ”(9.5mm)lead length at 5 lbs(2.3kg) tension

## Mechanical Data

◆Case: Transfer molded plastic

◆Epoxy: UL94V-0 rate flame retardant

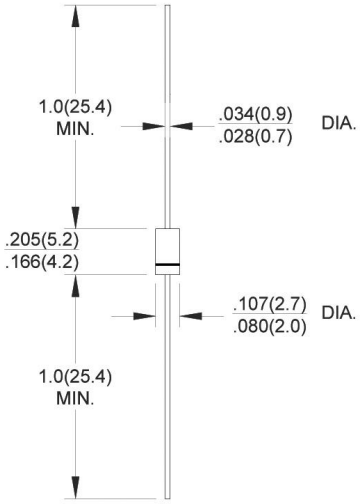
◆Polarity: Color band denotes cathode end

◆Lead: Plated axial lead, solderable per MIL-STD-202E method 208C

◆Mounting position: Any

◆Weight:  0.012ounce, 0.33 grams

## DO-41




**Dimensions in inches and (millimeters)**

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

**Rating at 25℃ ambient temperature unless otherwise specified.**

**Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%**

| PARAMETER | | SYMBOL | 1N5817 | 1N5818 | 1N5819 | UNIT |
|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | | $V_{RRM}$ | 20 | 30 | 40 | Volts |
| Maximum RMS Voltage | | $V_{RMS}$ | 14 | 21 | 28 | Volts |
| Maximum DC Blocking Voltage | | $V_{DC}$ | 20 | 30 | 40 | Volts |
| Maximum Average Forward Rectified Current at $T_A$=75℃ | | $I_{(AV)}$ | 1.0 | | | Amps |
| Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method) | | $I_{FSM}$ | 25 | | | Amps |
| Maximum Instantaneous Forward Voltage at 1.0A | | $V_F$ | 0.45 | 0.55 | 0.60 | Volts |
| Maximum Instantaneous Forward Voltage at 3.0A | | | 0.75 | 0.875 | 0.90 | Volts |
| Maximum DC Reverse Current at rated DC Blocking Voltage | $T_A$ = 25℃ | $I_R$ | 0.5 | | | mA |
| | $T_A$ = 125℃ | | 10 | | | |
| Typical Junction Capacitance (NOTE 1) | | $C_J$ | 110 | | | pF |
| Typical Thermal Resistance (NOTE 2) | | $R_{\theta JA}$ | 80 | | | ℃/W |
| Operating and Storage Temperature Range | | $T_J$,$T_{STG}$ | -55 to +125 | | | ℃ |

**Note:** 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

2. Thermal Resistance Junction to Ambient.

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## RATING AND CHARACTERISTIC CURVES 1N5817 THRU 1N5819

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

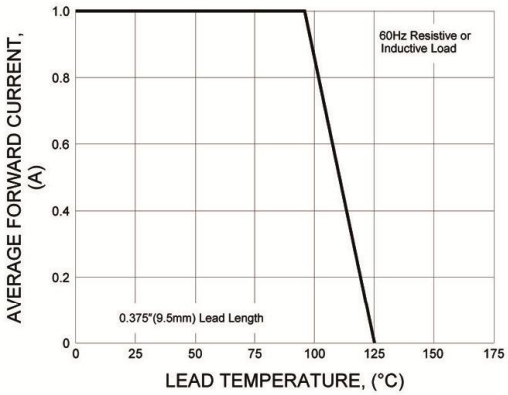



FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

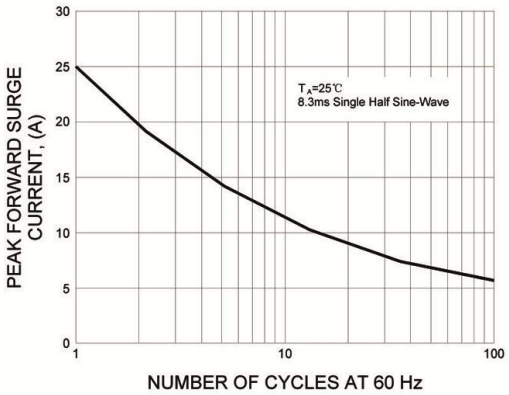



FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

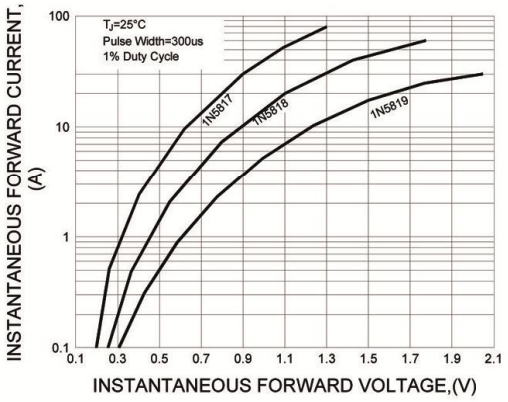



FIG.4-TYPICAL REVERSE CHARACTERISTICS

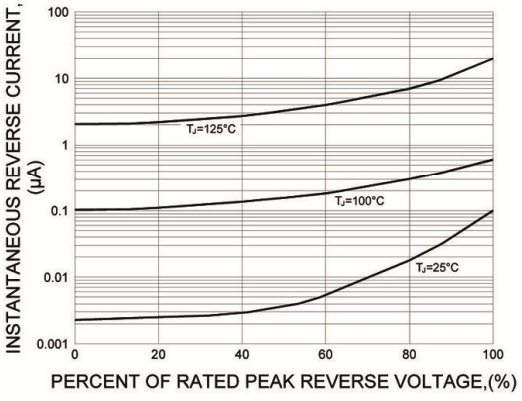
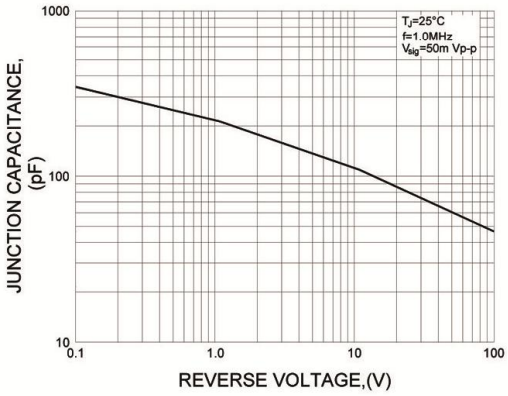



FIG.5-TYPICAL JUNCTION CAPACITANCE




Note: Specifications are subject to change without notice. For more detail and update, please visit our website.