



1N5817~1N5819

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 40 Volts **CURRENT** 1.0 Ampere

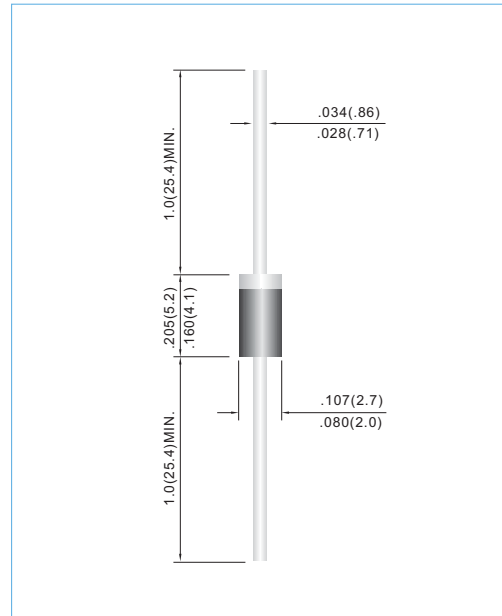
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage,high frequency inverters ,free wheeling ,and polarity protection applications .
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: DO-41 Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.0118 ounces, 0.336 grams

DO-41 Unit: inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

| PARAMETER | SYMBOL | 1N5817 | 1N5818 | 1N5819 | 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 Current .375" (9.5mm) lead length (See Figure1) | $I_{F(AV)}$ | 1.0 | | | A |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I_{FSM} | 25 | | | A |
| Maximum Forward Voltage at 1.0A DC Maximum Forward Voltage at 3.0A DC | V_F | 0.47 0.75 | 0.55 0.875 | 0.60 0.90 | V |
| Maximum DC Reverse Current $T_J=25^{\circ}C$ at Rated DC Blocking Voltage $T_J=100^{\circ}C$ | I_R | 0.2 10 | | | mA |
| Typical Thermal Resistance | $R_{\theta JA}$ | 80 | | | $^{\circ}C / W$ |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to +125 | | -55 to +150 | $^{\circ}C$ |



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RATING AND CHARACTERISTIC CURVES

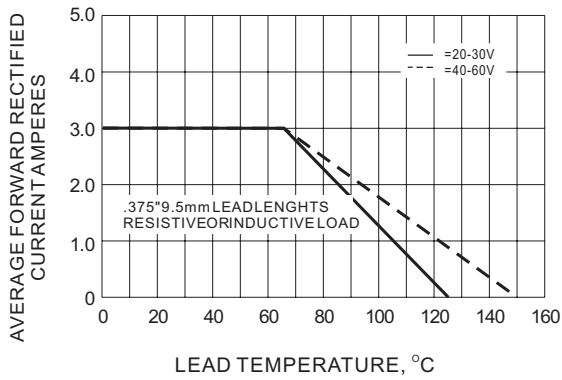


Fig.1- FORWARD CURRENT DERATING CURVE

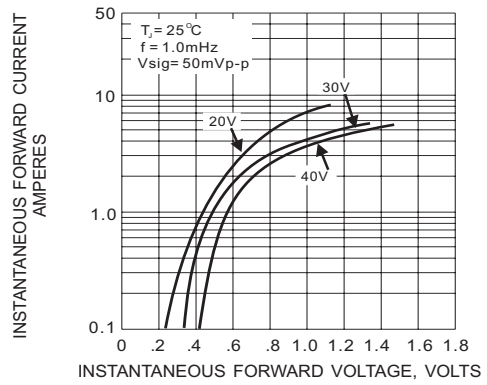


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

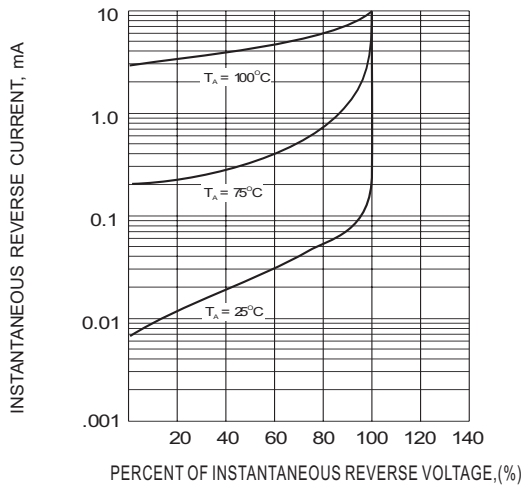


Fig.3- TYPICAL REVERSE CHARACTERISTIC

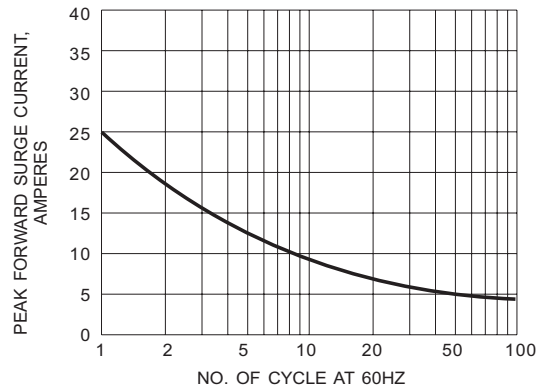


Fig.4- MAXIMUM NON - REPETITIVE SURGE CURRENT

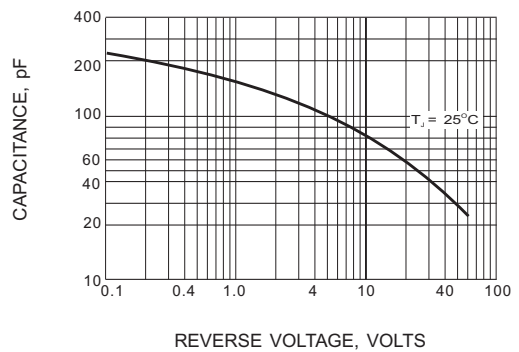


Fig.5- TYPICAL JUNCTION CAPACITANCE