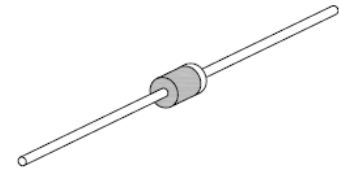


1A Schottky Barrier Rectifiers

Features

- Guardring for overvoltage protection
- Metal to silicon junction, majority carrier conduction
- Very small conduction losses
- Extremely fast switching
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters
- Solder dip 260 ° C, 10 seconds
- RoHS Compliance



**DO-41
(DO-204AL)**



Mechanical Data

| | |
|-------------------|---|
| Case: | JEDEC DO-204AL(DO-41) molded plastic body |
| Epoxy: | Plastic package has UL flammability classification 94V-0 |
| Terminals: | Pure tin plated leads, solderable per J-STD-002B and JESD22-B102D |
| Polarity: | Color band denotes cathode end |
| Weight: | 0.012 ounces, 0.3 gram |

Maximum Ratings and Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless noted otherwise)

| Symbol | Description | 1N5817 | 1N5818 | 1N5819 | Unit | Conditions |
|--------------------------|---|--------|--------|--------|------|---|
| V_{RRM} | Maximum Repetitive Peak Reverse Voltage | 20 | 30 | 40 | V | |
| V_{RMS} | Maximum RMS Voltage | 14 | 21 | 28 | V | |
| V_{DC} | Maximum DC Blocking Voltage | 20 | 30 | 40 | V | |
| V_{RSM} | Maximum Non-repetitive Peak Reverse Voltage | 24 | 36 | 48 | V | |
| I_{F(AV)} | Maximum Average Forward Rectified Current | 1.0 | | | A | 0.375" (9.5mm) lead length at T _L =90° C |

1A Schottky Barrier Rectifiers

1N5817 -1N5819

| Symbol | Description | 1N5817 | 1N5818 | 1N5819 | Unit | Conditions |
|-----------------|---|-------------|--------|--------|--------|---|
| IFSM | Peak Forward Surge Current | 25 | | | A | 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) |
| VF | Maximum Instantaneous Forward Voltage (Note 1) | 0.45 | 0.55 | 0.60 | V | IF=1.0A |
| IR | Maximum DC Reverse Current at Rated DC Blocking Voltage | 0.5 | | | mA | TA=25° C |
| | | 10 | | | | TA=100° C |
| CJ | Typical Junction Capacitance | 125 | 110 | | pF | VR=4V, f=1MHz |
| RthJA | Typical Thermal Resistance | 50 | | | °C / W | Note 2 |
| RthJL | | 15 | | | | |
| TJ, TSTG | Operating Junction and Storage Temperature Range | -65 to +125 | | | °C | |

Note: (1) Pulse test: 300µS pulse width, 1% duty cycle.
 (2) Thermal resistance from junction to lead vertical P.C.B mounted, 0.375" (9.5mm) lead length with 1.5 x 1.5" (38 x 38mm) copper pads.

Typical Characteristics Curves

Fig.1-Forward Current Derating Curve

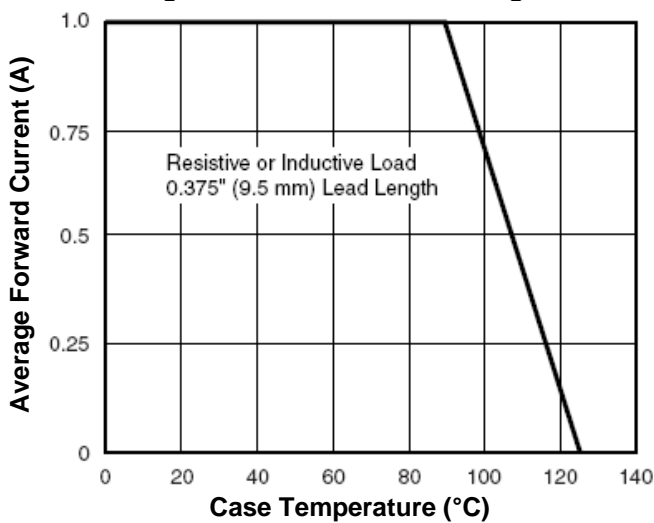
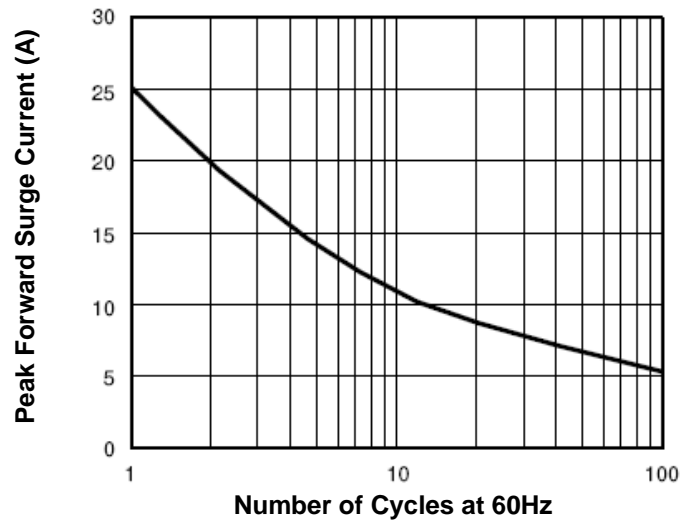


Fig.2-Max. Non-Repetitive Peak Forward Surge Current



1A Schottky Barrier Rectifiers

1N5817 -1N5819

Fig.3- Typical Instantaneous Forward Characteristics

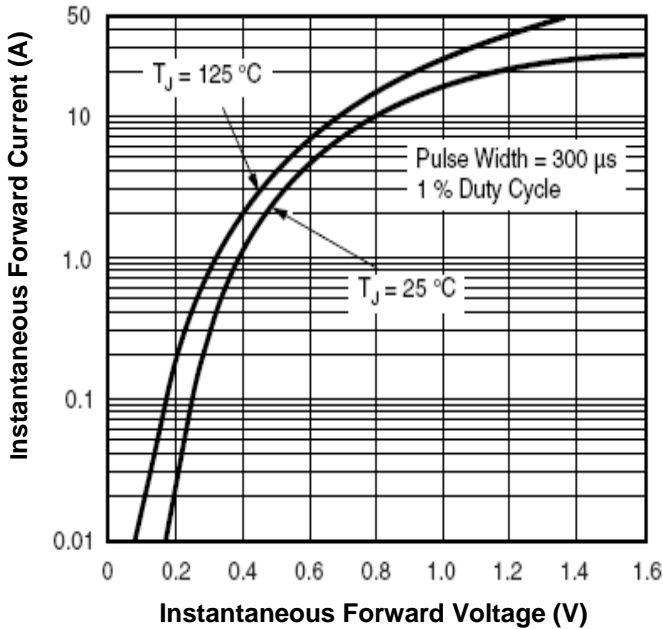


Fig.4-Typical Reverse Characteristics

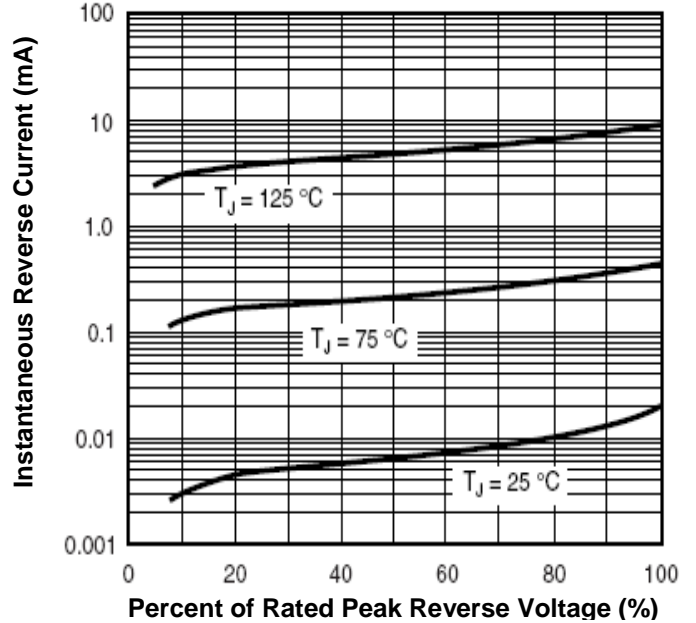


Fig.5- Typical Junction Capacitance

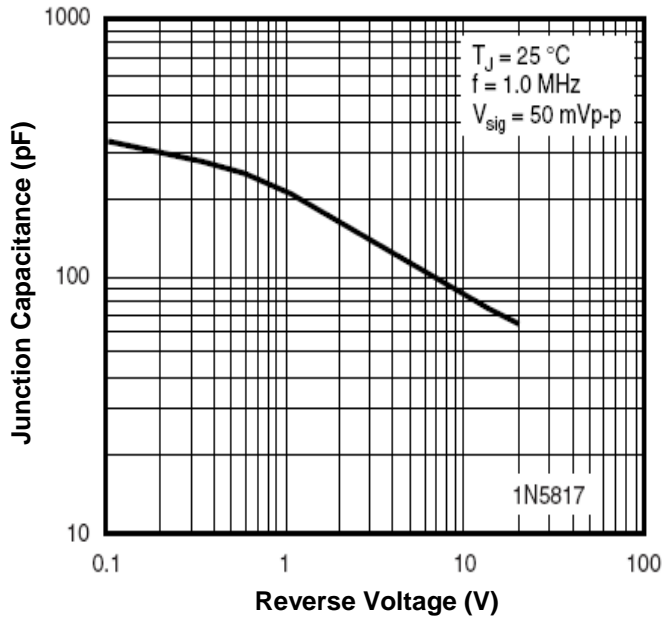
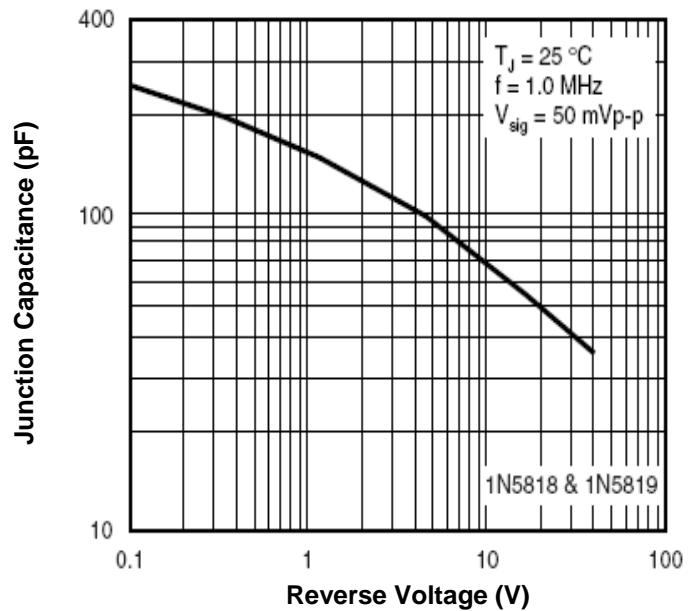


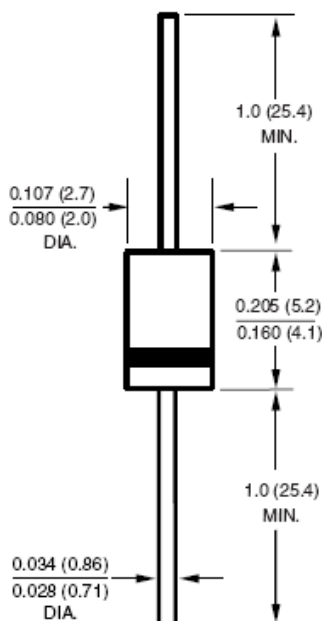
Fig.6- Typical Junction Capacitance



1A Schottky Barrier Rectifiers

1N5817 -1N5819

Dimensions in inches (mm)



**DO-41
(DO-204AL)**

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