

# 1N5817-1N5819

## SCHOTTKY RECTIFIERS

### FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

### MAXIMUM RATINGS

| Characteristics   | Symbol                            | Value                             |
|---|-----------------------------------|-----------------------------------|
| Storage temperature range                                     | $T_{STG}$                         | -55 to + 150°C                    |
| Operating junction temperature range                          | $T_J$                             | -55 to +150°C                     |
| Maximum thermal resistance                                    | $R_{\theta JL}, L = \frac{1}{4}"$ | 15°C/W Junction to lead           |
| Working peak reverse voltage<br>1N5817<br>1N5818<br>1N5819    | $V_{RWM}$                         | 20V<br>30V<br>40V                 |
| Repetitive peak reverse voltage<br>1N5817<br>1N5818<br>1N5819 | $V_{RRM}$                         | 20V<br>30V<br>40V                 |
| Weight  |                                   | 0.011 ounces (0.34 grams) typical |

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

| Parameters                   | Symbol      | Test Conditions  | 1N5817 | 1N5818 | 1N5819 |
|------------------------------|-------------|--|--------|--------|--------|
| Average forward current      | $I_{F(AV)}$ |  | 1A     | 1A     | 1A     |
| Ambient temperature          | $T_A$       | $R_{\theta JL} = 15^\circ\text{C/W}, L = \frac{1}{4}"$ | 135°C  | 130°C  | 130°C  |
| Maximum surge current        | $I_{FSM}$   | 8.3 ms, half sine, $T_J = 150^\circ\text{C}$           | 50A    | 50A    | 50A    |
| Maximum peak forward voltage | $V_{FM}$    | $I_{FM} = 0.1\text{A}, T_J = 25^\circ\text{C}^*$       | .32V   | .37V   | .37V   |
| Maximum peak forward voltage | $V_{FM}$    | $I_{FM} = 1.0\text{A}, T_J = 25^\circ\text{C}^*$       | .45V   | .55V   | .55V   |
| Maximum peak forward voltage | $V_{FM}$    | $I_{FM} = 3.0\text{A}, T_J = 25^\circ\text{C}^*$       | .65V   | .85V   | .85V   |
| Maximum peak reverse current | $I_{RM}$    | $V_{RRM}, T_J = 25^\circ\text{C}$                      | 1mA    | 1mA    | 1mA    |
| Typical junction capacitance | $C_J$       | $V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$            | 105pF  | 50pF   | 50pF   |

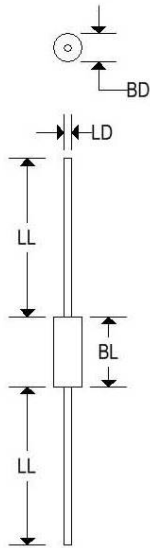
\*Pulse test: Pulse width 300μsec, duty cycle 2%.

# 1N5817-1N5819

## SCHOTTKY RECTIFIERS

### MECHANICAL CHARACTERISTICS

|                  |                             |
|------------------|-----------------------------|
| <b>Case:</b>     | DO-41                       |
| <b>Marking:</b>  | Body painted, alpha-numeric |
| <b>Polarity:</b> | Cathode band                |



|    | DO-41  |       |             |       |
|----|--------|-------|-------------|-------|
|    | Inches |       | Millimeters |       |
|    | Min    | Max   | Min         | Max   |
| BD | -      | 0.107 | -           | 2.720 |
| BL | -      | 0.205 | -           | 5.207 |
| LD | 0.028  | 0.034 | 0.711       | 0.864 |
| LL | 1.000  | -     | 25.400      | -     |

# 1N5817-1N5819

## SCHOTTKY RECTIFIERS

### 1N5817

Figure 1  
Typical Forward Characteristics

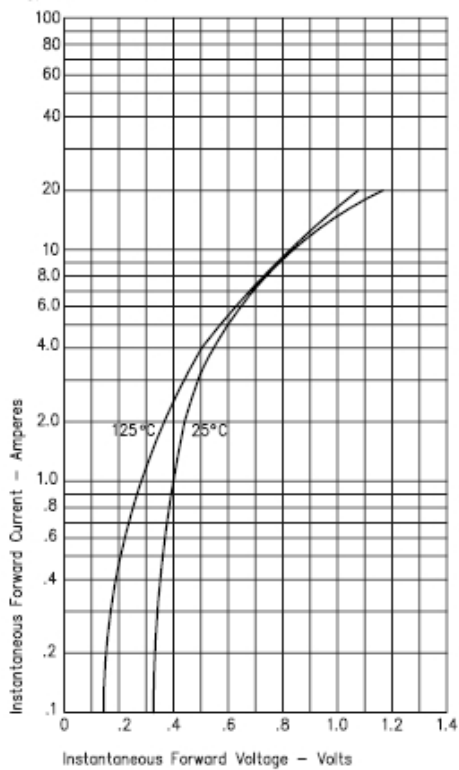


Figure 3  
Typical Junction Capacitance

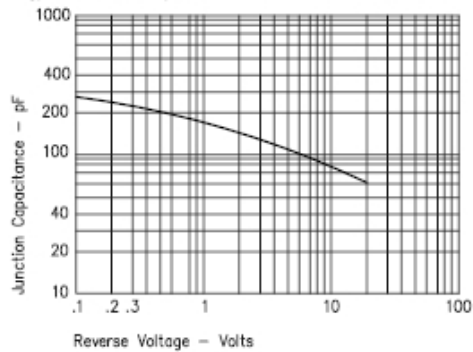
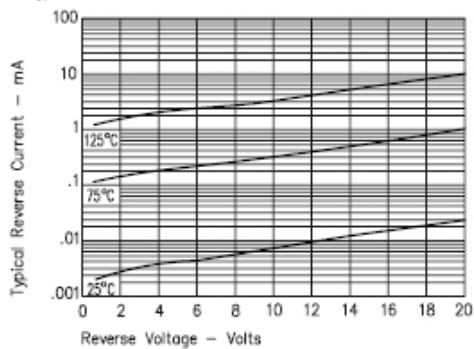


Figure 2  
Typical Reverse Characteristics



# 1N5817-1N5819

## SCHOTTKY RECTIFIERS

### 1N5818 & 1N5819

Figure 1  
Typical Forward Characteristics

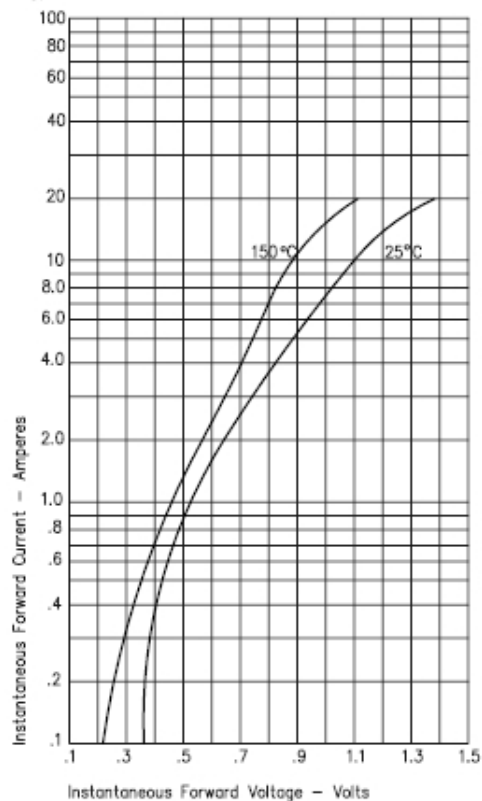


Figure 3  
Typical Junction Capacitance

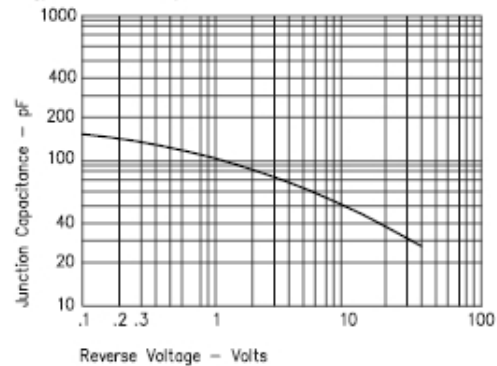


Figure 2  
Typical Reverse Characteristics

