



Micro Commercial Components  
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# 1N17 THRU 1N19

## 1.0 Amp Schottky Barrier Rectifier 20 to 40 Volts

### Features

- High Current Capability
- Low Power loss
- High Efficiency
- Low Forward Voltage Drop
- Metal Silicon junction, majority carrier conduction

### Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +125°C
- Typical Thermal Resistance: 50°C/W junction to Ambient
- For capacitive load. Derate current by 20%

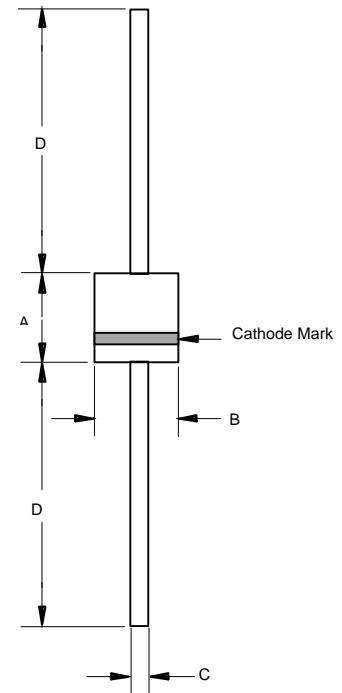
| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| 1N17            | 20V                                    | 14V                 | 20V                         |
| 1N18            | 30V                                    | 21V                 | 30V                         |
| 1N19            | 40V                                    | 28V                 | 40V                         |

### Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |            |                         |   |
|---|------------|-------------------------|---|
| Average Forward Rectified Current                       | $I_{(AV)}$ | 1.0A                    | $T_A = 90^\circ\text{C}$                              |
| Peak Forward Surge Current                              | $I_{FSM}$  | 25A                     | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage                   | $V_F$      | 0.45V<br>0.55V<br>0.60V | $I_{FM} = 1.0A;$<br>$T_C = 25^\circ\text{C}$          |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$      | 0.5mA<br>10mA           | $T_C = 25^\circ\text{C}$<br>$T_C = 100^\circ\text{C}$ |
| Typical Junction Capacitance                            | $C_J$      | 110pF                   | Measured at 1.0MHz, $V_R=4.0V$                        |

**Note:** 300 us pulse width, 1% duty cycle

### R-1



| DIM | DIMENSIONS |       |       |       | NOTE |
|-----|------------|-------|-------|-------|------|
|     | INCHES     |       | MM    |       |      |
|     | MIN        | MAX   | MIN   | MAX   |      |
| A   | 0.116      | 0.140 | 2.90  | 3.50  |      |
| B   | 0.091      | 0.102 | 2.30  | 2.60  |      |
| C   | 0.020      | 0.024 | 0.50  | 0.60  |      |
| D   | 0.787      | ----- | 20.00 | ----- |      |

# 1N17 thru 1N19



FIG.1-FORWARD CURRENT DERATING CURVE

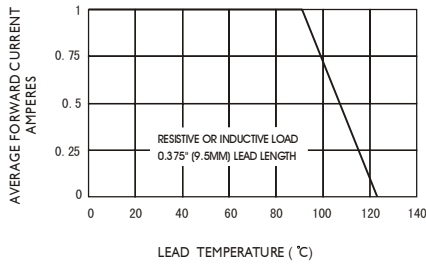


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

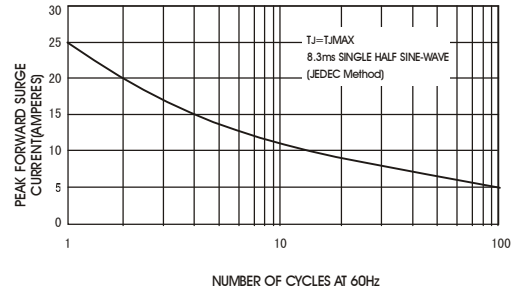


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

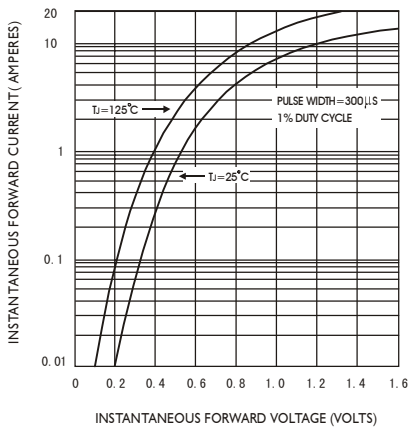


FIG.4-TYPICAL REVERSE CHARACTERISTICS

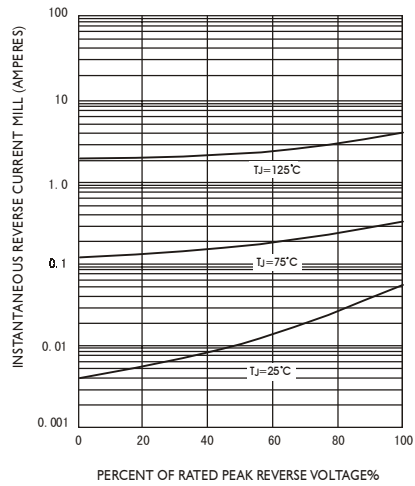


FIG.5-TYPICAL JUNCTION CAPACITANCE

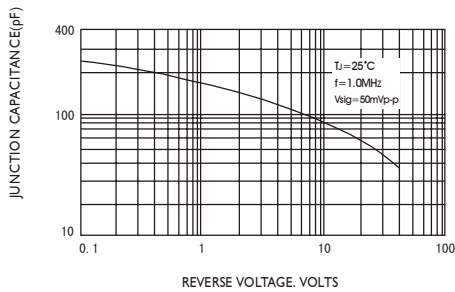


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

