



Micro Commercial Components
 21201 Itasca Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

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%

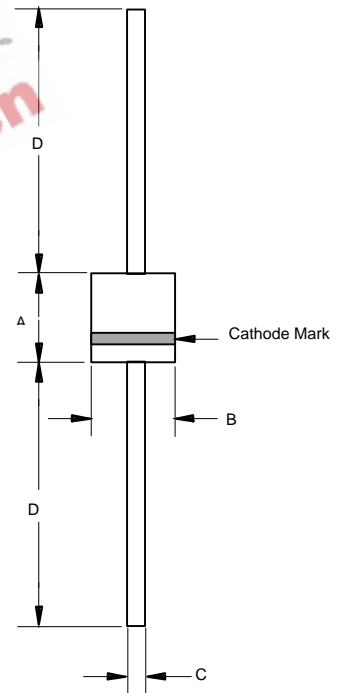
| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| 1N17 | 20V | 14V | 20V |
| 1N18 | 30V | 21V | 30V |
| 1N19 | 40V | 28V | 40V |

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 0.55V 0.60V | $I_{FM} = 1.0\text{A};$ $T_C = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.5mA 10mA | $T_C = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 110pF | Measured at 1.0MHz, $V_R=4.0\text{V}$ |

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

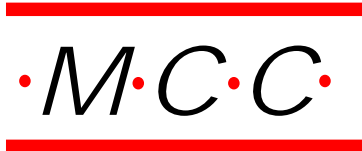


FIG.1-FORWARD CURRENT DERATING CURVE

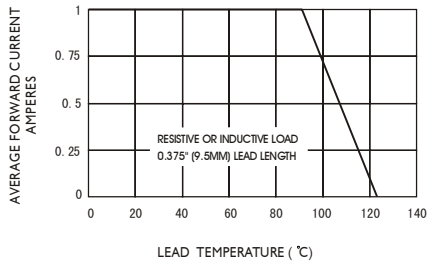


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

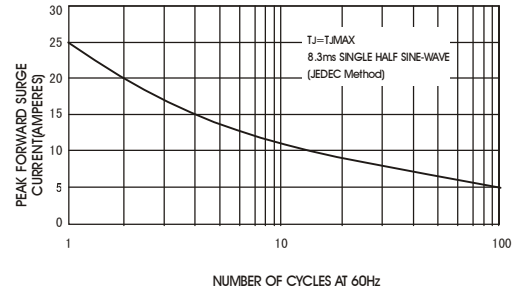


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

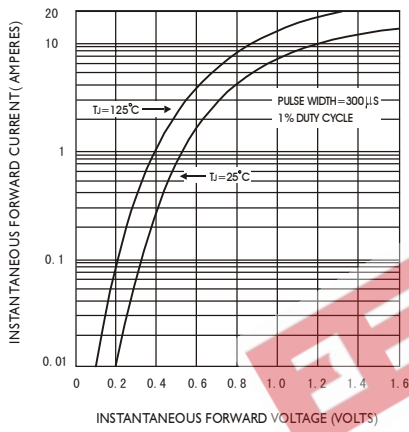


FIG.4-TYPICAL REVERSE CHARACTERISTICS

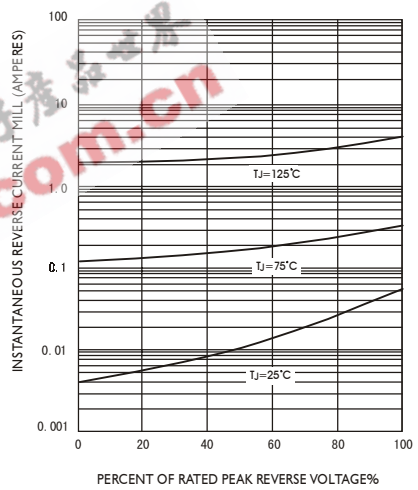


FIG.5-TYPICAL JUNCTION CAPACITANCE

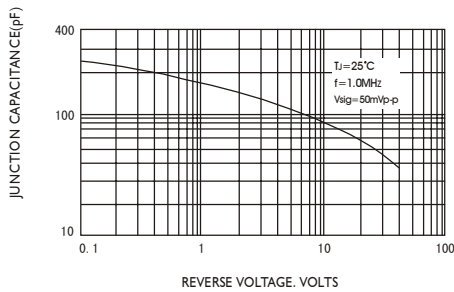


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

