



Micro Commercial Components



Micro Commercial Components  
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**1N5817  
THRU  
1N5819**

## Features

- Halogen free available upon request by adding suffix "-HF"
- Guard Ring Protection
- Low Forward Voltage
- Low Power Loss For High Efficiency
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

## Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +125°C
- Maximum Thermal Resistance; 80°C/W Junction To Ambient

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------------------------------|---------------------|-----------------------------|
| 1N5817          | 20V                                    | 14V                 | 20V                         |
| 1N5818          | 30V                                    | 21V                 | 30V                         |
| 1N5819          | 40V                                    | 28V                 | 40V                         |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

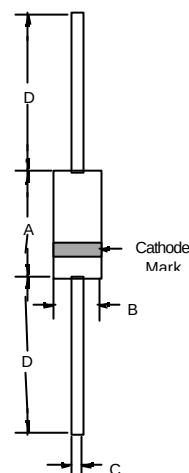
|                                                         |             |                      |                                                                   |
|---------------------------------------------------------|-------------|----------------------|-------------------------------------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 1.0A                 | $T_A = 90^\circ\text{C}$                                          |
| Peak Forward Surge Current                              | $I_{FSM}$   | 25A                  | 8.3ms, half sine                                                  |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | .45V<br>.55V<br>.60V | $I_{FM} = 1.0\text{A};$<br>$T_J = 25^\circ\text{C}^*$             |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 1.0mA<br>10mA        | $T_J = 25^\circ\text{C}$<br>$T_J = 100^\circ\text{C}$             |
| Typical Reverse Recovery Time                           | $T_{rr}$    | 10ns                 | $I_F = 0.5\text{A}, I_R = 1.0\text{A}$<br>$I_{RR} = 0.25\text{A}$ |
| Typical Junction Capacitance                            | $C_j$       | 110pF                | Measured at 1.0MHz, $V_R = 4.0\text{V}$                           |

\*Pulse test: Pulse width 300  $\mu\text{s}$ , Duty cycle 2%

Note:1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

**1 Amp Schottky  
Barrier Rectifier  
20 to 40 Volts**

DO-41



| DIM | INCHES |      | MM    |      | NOTE |
|-----|--------|------|-------|------|------|
|     | MIN    | MAX  | MIN   | MAX  |      |
| A   | .166   | .205 | 4.10  | 5.20 |      |
| B   | .080   | .107 | 2.00  | 2.70 |      |
| C   | .028   | .034 | .70   | .90  |      |
| D   | 1.000  | ---  | 25.40 | ---  |      |

# 1N5817 thru 1N5819

•M•C•C•

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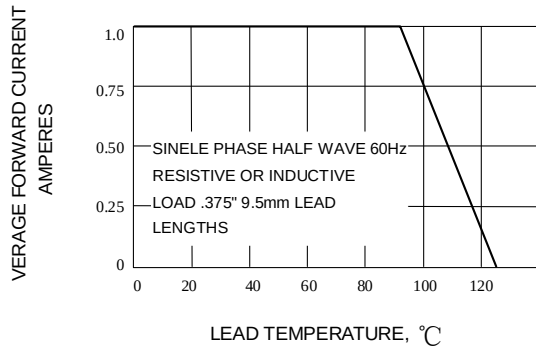


Fig. 1-FORWARD CURRENT DERATING CURVE

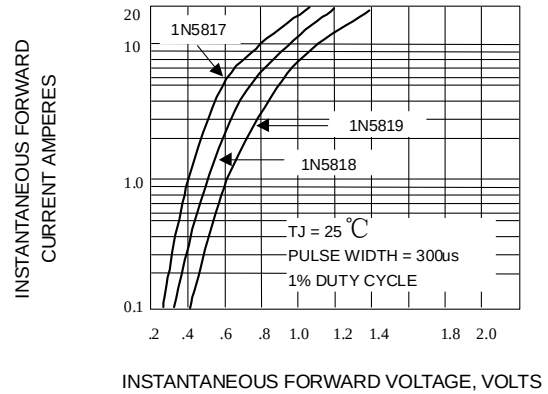


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

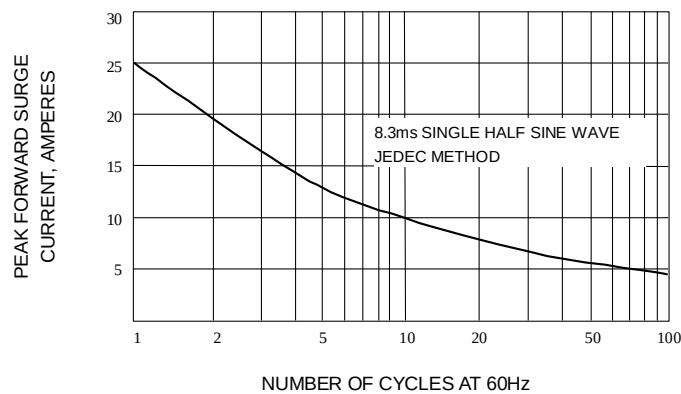


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

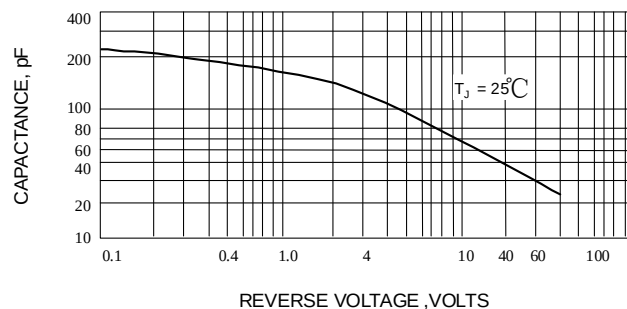


Fig. 4-TYPICAL JUNCTION CAPACITANCE

## Ordering Information :

| Device         | Packing                      |
|----------------|------------------------------|
| Part Number-TP | Tape&Reel: 5Kpcs/Reel        |
| Part Number-AP | Ammo Packing: 5Kpcs/Ammo Box |
| Part Number-BP | Bulk: 50Kpcs/Carton          |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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