1N5817
THRU
1N5819

1 Amp Schottky Barrier Rectifier
20 to 40 Volts

**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

<table>
<thead>
<tr>
<th>MCC Part Number</th>
<th>Maximum Recurrent Peak Reverse Voltage</th>
<th>Maximum RMS Voltage</th>
<th>Maximum DC Blocking Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1N5817</td>
<td>20V</td>
<td>14V</td>
<td>20V</td>
</tr>
<tr>
<td>1N5818</td>
<td>30V</td>
<td>21V</td>
<td>30V</td>
</tr>
<tr>
<td>1N5819</td>
<td>40V</td>
<td>28V</td>
<td>40V</td>
</tr>
</tbody>
</table>

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

- Average Forward Current: $I_{F(AV)} = 1.0A$, $T_A = 90°C$
- Peak Forward Surge Current: $I_{F(SM)} = 25A$, 8.3ms, half sine
- Maximum Instantaneous Forward Voltage: 
  - 1N5817: $V_F = 0.45V$
  - 1N5818: $V_F = 0.55V$
  - 1N5819: $V_F = 0.60V$
- Maximum DC Reverse Current At Rated DC Blocking Voltage: 
  - $I_R = 1.0mA$, $T_J = 25°C$
  - $I_R = 10mA$, $T_J = 100°C$
- Typical Reverse Recovery Time: $T_{rr} = 10ns$
- Typical Junction Capacitance: $C_j = 110pF$, Measured at 1.0MHz, $V_{DC}=4.0V$

*Pulse test: Pulse width 300 μsec, Duty cycle 2%

1N5817 thru 1N5819

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:

<table>
<thead>
<tr>
<th>Device</th>
<th>Packing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number-TP</td>
<td>Tape&amp;Reel: 5Kpcs/Reel</td>
</tr>
<tr>
<td>Part Number-AP</td>
<td>Ammo Packing: 5Kpcs/Ammo Box</td>
</tr>
<tr>
<td>Part Number-BP</td>
<td>Bulk: 50Kpcs/Carton</td>
</tr>
</tbody>
</table>

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

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