NTE116
General Purpose Silicon Rectifier

Description:
The NTE116 is a general purpose silicon rectifier in a DO–41 case designed for low power and switching applications.

Absolute Maximum Ratings:
Peak Repetitive Reverse Voltage, \( V_{RRM} \) .................................................. 600V
Working Peak Reverse Voltage, \( V_{RWM} \) .................................................. 600V
DC Blocking Voltage, \( V_R \) .............................................................. 600V
Non–Repetitive Peak Reverse Voltage (Halfwave, Single Phase, 60Hz), \( V_{RSM} \) .............. 720V
RMS Reverse Voltage, \( V_{R(RMS)} \) .................................................. 420V
Average Rectified Forward Current, \( I_O \) (Single Phase, Resistive Load, 60Hz, \( T_A = +75\, ^\circ C \)) ......................... 1A
Non–Repetitive Peak Surge Current, \( I_{FSM} \) (Surge applied at rated load conditions for 1 cycle) ......................... 30A
Operating Junction Temperature Range, \( T_J \) .............................................. –65° to +175°C
Storage Temperature Range, \( T_{stg} \) .............................................. –65° to +175°C
Maximum Lead Temperature, \( T_L \) (During Soldering, 3/8” from case for 10sec at 5lbs tension) ................. +350°C

Electrical Characteristics:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Test Conditions</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Instantaneous Forward Voltage Drop</td>
<td>( V_F )</td>
<td>( I_F = 1A, T_J = +25°C )</td>
<td>–</td>
<td>0.93</td>
<td>1.1</td>
<td>V</td>
</tr>
<tr>
<td>Maximum Full–Cycle Average Forward Voltage Drop</td>
<td>( V_{F(AV)} )</td>
<td>( I_O = 1A, T_L +75°C, 1&quot; leads )</td>
<td>–</td>
<td>–</td>
<td>0.8</td>
<td>V</td>
</tr>
<tr>
<td>Maximum Reverse Current</td>
<td>( I_R )</td>
<td>( V_{RRM} = 600V, T_J = +25°C )</td>
<td>0.05</td>
<td>10</td>
<td>–</td>
<td>µA</td>
</tr>
<tr>
<td>Maximum Full–Cycle Average Reverse Current</td>
<td>( I_{R(AV)} )</td>
<td>( I_O = 1A, T_L +75°C, 1&quot; leads )</td>
<td>–</td>
<td>–</td>
<td>30</td>
<td>µA</td>
</tr>
</tbody>
</table>
Color Band Denotes Cathode

1.100 (27.94) Min

.210 (5.33) Max

.034 (0.87) Dia Max

.107 (2.72) Dia Max