RB161L-40

SILICON EPITAXIAL PLANAR SCHOTTKY BARRIER DIODE
FOR HIGH FREQUENCY RECTIFICATION AND SWITCHING POWER SUPPLY

Features
* Compact power mold type
* Ultra low $V_F$ ($V_F = 0.35V$ typ. at 1A)
* $V_{RM} = 40V$ guaranteed

Maximum Ratings and Electrical Characteristics
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load,
For capacitive load, derate by 20%

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbols</th>
<th>Limits</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak reverse voltage</td>
<td>$V_{RM}$</td>
<td>40</td>
<td>Volts</td>
</tr>
<tr>
<td>DC blocking voltage</td>
<td>$V_R$</td>
<td>20</td>
<td>Volts</td>
</tr>
<tr>
<td>Mean rectifying current $^1$</td>
<td>$I_D$</td>
<td>1</td>
<td>Amps</td>
</tr>
<tr>
<td>Peak forward surge current</td>
<td>$I_{FSM}$</td>
<td>70</td>
<td>Amps</td>
</tr>
<tr>
<td>Operating junction temperature range</td>
<td>$T_J$</td>
<td>125</td>
<td>°C</td>
</tr>
<tr>
<td>Storage temperature range</td>
<td>$T_S$</td>
<td>-40 to +125</td>
<td>°C</td>
</tr>
</tbody>
</table>

Notes: 1) When mounting on PCB

Electrical characteristics ($Ta = 25°C$)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward voltage at $I_F = 1.0A$</td>
<td>$V_F$</td>
<td>-</td>
<td>-</td>
<td>0.40</td>
<td>Volts</td>
</tr>
<tr>
<td>Reverse current at $V_R = 20V$</td>
<td>$I_R$</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>mA</td>
</tr>
</tbody>
</table>
Forward Current: IF (A)

Forward Voltage: VF (V)

Terminal Capacitance: CT (F)

Reverse Current: IR (A)

Reverse Voltage: VR (V)

Average Rectified Forward Current: IO (A)

Average Rectified Forward Current: IO (A)

Reverse Power Dissipation: PR (W)

Reverse Power Dissipation: PR (W)

Fig. 1 Forward Characteristics

Fig. 2 Reverse Characteristics

Fig. 3 Capacitance Between Terminals Characteristics

Fig. 4 Forward Power Dissipation Characteristics

Fig. 5 Reverse Power Dissipation Characteristics

Fig. 6 Derating Curve (When Mounting On Glass Epoxy PCBs)

Ambient Temperature: Ta (°C)

Ta = 25°C
Ta = 75°C
Ta = 125°C