Schottky Barrier Rectifier

Features:

- Metal-semiconductor junction with guard ring.
- Epitaxial construction.
- Low forward voltage drop.
- High current capability.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

Reverse Voltage - 100 V
Forward Current - 1 Ampere

DO - 41

Dimensions: Inches (Millimetres)

Mechanical Data

Case: JEDEC DO-41 moulded plastic.
Polarity: Colour band denotes cathode.
Weight: 0.012 oz, 0.34 g.
Mounting position: Any.
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Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

<table>
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<th>Characteristics</th>
<th>Symbol</th>
<th>SR1100</th>
<th>Unit</th>
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<tr>
<td>Maximum Recurrent Peak Reverse Voltage</td>
<td>V_{RRM}</td>
<td>100</td>
<td>V</td>
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<tr>
<td>Maximum RMS Voltage</td>
<td>V_{RMS}</td>
<td>70</td>
<td>V</td>
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<td>Maximum DC Blocking Voltage</td>
<td>V_{DC}</td>
<td>100</td>
<td>V</td>
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<tr>
<td>Maximum Average Forward Rectified Current 0.375° (9.5 mm) Lead Lengths at T_L = 100°C</td>
<td>I_{AV}</td>
<td>1</td>
<td>A</td>
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<tr>
<td>Peak Forward Surge Current 8.3 ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC Method)</td>
<td>I_{FSM}</td>
<td>40</td>
<td></td>
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<tr>
<td>Peak Forward Voltage at 1 A dc</td>
<td>V_F</td>
<td>0.85</td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC Reverse Current at T_J = 25°C</td>
<td>I_R</td>
<td>1</td>
<td>mA</td>
</tr>
<tr>
<td>Rated DC Blocking Voltage at T_J = 100°C</td>
<td>10</td>
<td></td>
<td></td>
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<td>Typical Junction Capacitance (Note 1)</td>
<td>C_J</td>
<td>80</td>
<td>pF</td>
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<td>Typical Thermal Resistance (Note 2)</td>
<td>R_{JUL}</td>
<td>15</td>
<td>°C/W</td>
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<td>Operating Temperature Range</td>
<td>T_J</td>
<td>-55 to +125</td>
<td>°C</td>
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<tr>
<td>Storage Temperature Range</td>
<td>T_{STG}</td>
<td>-55 to +150</td>
<td>°C</td>
</tr>
</tbody>
</table>

Notes:
1. Measured at 1 MHz and applied reverse voltage of 4 V dc.
2. Thermal resistance junction to lead.

Rating and Characteristics Curves

Forward Current Derating Curve

![Forward Current Derating Curve](image)

Maximum Non-Repetitive Surge Current

![Maximum Non-Repetitive Surge Current](image)
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Rating and Characteristics Curves

Typical Junction Capacitance

Typical Forward Characteristics

Typical Reverse Characteristics

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