SS52A THRU SS510A

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER
Reverse Voltage - 20 to 100 V
Forward Current - 5 A

Features
• Metal-semiconductor junction with gard ring
• Epitaxial construction
• Low forward voltage drop
• High current capability
• The plastic material carries UL recognition 94V-0
• For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

Mechanical Data
• Case: molded plastic
• Polarity: Color band denotes cathode

Maximum Ratings and Electrical Characteristics
Ratings 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>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>SS52A</th>
<th>SS5205A</th>
<th>SS54A</th>
<th>SS55A</th>
<th>SS56A</th>
<th>SS58A</th>
<th>SS510A</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Recurrent Peak Reverse Voltage</td>
<td>V_{RRM}</td>
<td>20</td>
<td>25</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>V</td>
</tr>
<tr>
<td>Maximum RMS Voltage</td>
<td>V_{RMS}</td>
<td>14</td>
<td>20</td>
<td>28</td>
<td>35</td>
<td>42</td>
<td>56</td>
<td>70</td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC Blocking Voltage</td>
<td>V_{DC}</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>V</td>
</tr>
<tr>
<td>Maximum Average Forward Rectified Current 0.375° (9.5 mm) Lead Lengths at T_L = 95 °C</td>
<td>I_F(AV)</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
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<td>A</td>
</tr>
<tr>
<td>Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)</td>
<td>I_{FSM}</td>
<td>150</td>
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<td></td>
<td>A</td>
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<tr>
<td>Maximum Forward Voltage at 3 A DC</td>
<td>V_F</td>
<td>0.38</td>
<td>0.39</td>
<td>0.51</td>
<td>0.6</td>
<td>0.72</td>
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<td></td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC Reverse Current at Rated DC Blocking Voltage T_j = 25 °C</td>
<td>I_R</td>
<td>0.5</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>mA</td>
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<tr>
<td>Typical Junction Capacitance ¹)</td>
<td>C_j</td>
<td>500</td>
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<td>350</td>
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<td></td>
<td>pF</td>
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<tr>
<td>Typical Thermal Resistance ²)</td>
<td>R_{JJA}</td>
<td>15</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>°C/W</td>
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<tr>
<td>Operating Temperature Range</td>
<td>T_{j}</td>
<td>- 55 to + 150</td>
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<td></td>
<td></td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>T_{stg}</td>
<td>- 55 to + 150</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>°C</td>
</tr>
</tbody>
</table>

¹) Measured at 1 MHz and applied reverse voltage of 4 V DC.
²) Thermal resistance junction to ambient.