SS32-SS310
Surface Mount Schottky Barrier Rectifiers

REVERSE VOLTAGE: 20 - 100 V
FORWARD CURRENT: 3.0 A

Features
- Schottky barrier rectifier
- Guardring protection
- Low forward voltage
- Reverse energy tested
- High current capability
- Extremely low thermal resistance

Mechanical Data
- Case: SMC molded plastic body
- Polarity: Color band denotes cathode end
- Mounting position: ANY
- Weight: 0.007 ounces, 0.21 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25°C ambient temperature unless otherwise specified

<table>
<thead>
<tr>
<th>Device marking code</th>
<th>SS32</th>
<th>SS33</th>
<th>SS34</th>
<th>SS35</th>
<th>SS36</th>
<th>SS38</th>
<th>SS39</th>
<th>SS310</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum repetitive peak reverse voltage</td>
<td>V_{RRM}</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>Maximum RMS voltage</td>
<td>V_{RMS}</td>
<td>14</td>
<td>21</td>
<td>28</td>
<td>35</td>
<td>42</td>
<td>56</td>
<td>63</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>90</td>
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<tr>
<td>Maximum average forward rectified current at T_{J}=90°C</td>
<td>I_{F(AV)}</td>
<td>3.0</td>
<td></td>
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<tr>
<td>Peak forward surge current 8.3ms single half-sine-wave</td>
<td>I_{FSM}</td>
<td>100.0</td>
<td></td>
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<tr>
<td>Maximum instantaneous forward voltage at I_{F}=3.0A (NOTE1)</td>
<td>V_{F}</td>
<td>0.50</td>
<td>0.75</td>
<td>0.85</td>
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<tr>
<td>Maximum DC reverse current at rated DC blocking voltage</td>
<td>I_{R}</td>
<td>20</td>
<td>0.5</td>
<td>10</td>
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<tr>
<td>Maximum thermal resistance</td>
<td>R_{JL}</td>
<td>17.0</td>
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<tr>
<td>Operating temperature range</td>
<td>T_{J}</td>
<td>-55 ---- +125</td>
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<tr>
<td>Storage temperature range</td>
<td>T_{STG}</td>
<td>-55 ---- +150</td>
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</tbody>
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NOTE: 1. Pulse test: Pulse width 300us, duty cycle 1%
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Ratings AND Characteristic Curves

**FIG.1 – FORWARD DERATING CURVE**

![Graph showing forward derating curve.](image1)

- **AVERAGE FORWARD RECTIFIED CURRENT**
- **AMPERES**
- **LEAD TEMPERATURE, °C**

**FIG.2 – PEAK FORWARD SURGE CURRENT**

![Graph showing peak forward surge current.](image2)

- **PEAK FORWARD SURGE CURRENT**
- **AMPERES**
- **NUMBER OF CYCLES AT 60Hz**

**FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

![Graph showing typical instantaneous forward characteristics.](image3)

- **INSTANTANEOUS FORWARD CURRENT**
- **AMPERES**
- **INSTANTANEOUS FORWARD VOLTAGE, VOLTS**