SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER
VOLTAGE - 20 to 100 Volts  CURRENT - 1.0 Ampere

FEATURES
- Plastic package has Underwriters Laboratory
  Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier
  majority carrier conduction
- Low power loss, High efficiency
- High current capability, low V_F
- High surge capacity
- For use in low voltage high frequency inverters,
  free wheeling, and polarity protection applications
- High temperature soldering:
  260 °C /10 seconds at terminals

MECHANICAL DATA
Case: JEDEC DO-214AC molded plastic
Terminals: Solder plated, solderable per MIL-STD-750,
Method 2026
Polarity: Color bank denotes cathode
Standard packaging: 12mm tape (EIA-481)
Weight: 0.002 ounce, 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>SYMBOLS</th>
<th>SS12</th>
<th>SS13</th>
<th>SS14</th>
<th>SS15</th>
<th>SS16</th>
<th>SS18</th>
<th>SS19</th>
<th>SS100</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Recurrent Peak Reverse Voltage</td>
<td>V_{BRM}</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>80</td>
<td>90</td>
<td>100 Volts</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>64</td>
<td>71 Volts</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>
<td>100 Volts</td>
</tr>
<tr>
<td>Maximum Average Forward Rectified Current at T_J (See Figure 1)</td>
<td>I_{AV}</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Amps</td>
</tr>
<tr>
<td>Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)</td>
<td>I_{FSM}</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30.0</td>
<td>Amps</td>
</tr>
<tr>
<td>Maximum Instantaneous Forward Voltage at 1.0A (Note 1)</td>
<td>V_{F}</td>
<td>0.5</td>
<td>0.70</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Volts</td>
</tr>
<tr>
<td>Maximum DC Reverse Current T_A=25 °C (Note 1)</td>
<td>I_{R}</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.5</td>
<td>mA</td>
</tr>
<tr>
<td>At Rated DC Blocking Voltage T_A=100 °C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Thermal Resistance (Note 2)</td>
<td>R \text{JEKL}</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>°C/W</td>
</tr>
<tr>
<td></td>
<td>R \text{JEKA}</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Operating Junction Temperature Range</td>
<td>T_J</td>
<td>-50 to +125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>T_{STG}</td>
<td>-50 to +150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>°C</td>
</tr>
</tbody>
</table>

NOTES:
1. Pulse Test with PW=300 μsec, 2% Duty Cycle.
2. Mounted on P.C.Board with 5.0mm² (.013mm thick) copper pad areas.
RATING AND CHARACTERISTIC CURVES

Fig. 1-FORWARD CURRENT DERATING CURVE

Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

Fig. 4-TYPICAL JUNCTION CAPACITANCE