SCHOTTKY BARRIER RECTIFIERS
Reverse Voltage - 20 to 60 Volts
Forward Current - 3.0 Amperes

Features
• Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
• Metal silicon junction, majority carrier conduction
• Built-in strain relief, ideal for automated placement
• For surface mount applications
• Low profile package
• Low power loss, high efficiency
• High current capability, Low forward voltage drop
• For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
• High temperature soldering guaranteed: 250°C/10 seconds at terminals

Mechanical Data
• Case: JEDEC SMB (DO-214AA) molded plastic body
• Terminals: solder plated, solderable per MIL-STD-750, Method 2026.
• Polarity: color band denotes cathode end

Absolute Maximum Ratings and 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>Parameters</th>
<th>Symbols</th>
<th>SK32</th>
<th>SK33</th>
<th>SK34</th>
<th>SK35</th>
<th>SK36</th>
<th>Units</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>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>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>Volts</td>
</tr>
<tr>
<td>Maximum average forward rectified current at T_L (Note 2)</td>
<td>I_(AV)</td>
<td>3</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>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Amps</td>
</tr>
<tr>
<td>Maximum instantaneous forward voltage at 3A (Note 1)</td>
<td>V_F</td>
<td>0.5</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
<td>Volts</td>
</tr>
<tr>
<td>Maximum instantaneous reverse current at rated DC blocking voltage (Note 1)</td>
<td>I_R</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>mA</td>
</tr>
<tr>
<td>Typical thermal capacitance (Note 2)</td>
<td>R_THA</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>°C/W</td>
</tr>
<tr>
<td>Operating junction temperature range</td>
<td>T_J</td>
<td>-65 to +125</td>
<td>-65 to +150</td>
<td></td>
<td></td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>Storage temperature range</td>
<td>T_S</td>
<td>-65 to +150</td>
<td></td>
<td></td>
<td></td>
<td>°C</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Pulse test: 300μs pulse width, 1% duty cycle.
2. P.C.B mounted with 0.55 x 0.55” (14 x 14mm) copper pad areas.
SK32 THRU SK36

RATINGS AND CHARACTERISTIC CURVES SK32 THRU SK36

Fig. 1 - FORWARD CURRENT DERATING CURVE

Fig. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

Fig. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

Fig. 4 - TYPICAL REVERSE CHARACTERISTICS

Fig. 5 - TYPICAL JUNCTION CAPACITANCE

Fig. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

SK32 THRU SK36

SEMTECH ELECTRONICS LTD.
(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

Dated: 23/06/2003