SK32 - SK36
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features
- Guard Ring Construction for Transient Protection
- High Current Capability and Low VF
- Capable of Meeting Environmental Standards of MIL-STD-19500
- Plastic Material - UL Flammability Classification 94V-0

Mechanical Data
- Case: SMC, Molded Plastic
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 5, on Page 3
- Polarity: Cathode Band
- Approx. Weight: 0.21 grams

Maximum Ratings and Electrical Characteristics
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz resistive or inductive load.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Symbol</th>
<th>SK32</th>
<th>SK33</th>
<th>SK34</th>
<th>SK35</th>
<th>SK36</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Recurrent Peak Reverse Voltage</td>
<td>$V_{RRM}$</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>V</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>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>V</td>
</tr>
<tr>
<td>Maximum Average Forward Rectified Current (See Fig. 1)</td>
<td>$I_{AV}$</td>
<td>3.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<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></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Maximum Instantaneous Forward Voltage at 3.0A (See Note 1)</td>
<td>$V_{F}$</td>
<td>0.50</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC Reverse Current at Rated DC Blocking Voltage (See Note 1) @ $T_A = 25^\circ C$</td>
<td>$I_{R}$</td>
<td>0.5</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td>mA</td>
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<tr>
<td>Maximum Thermal Resistance (See Note 2)</td>
<td>$P_{R_\text{TH}_0}$</td>
<td>10</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td>°C/W</td>
</tr>
<tr>
<td>Typical Total Capacitance (See Note 3)</td>
<td>$C_{T}$</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pF</td>
</tr>
<tr>
<td>Operating and Storage Temperature Range</td>
<td>$T_J, T_{STG}$</td>
<td>-65</td>
<td>to 150</td>
<td></td>
<td></td>
<td></td>
<td>°C</td>
</tr>
</tbody>
</table>

Notes:
1. Pulse Test Pulse Width 300 μS, Duty Cycle 2%.
2. 8.0mm² (0.13mm thick) land pads.
3. Measured at 1.0MHz and applied reverse voltage of 4.0V.
Fig. 1 Forward Derating Curve

Fig. 2 Typical Forward Characteristics

Fig. 3 Typical Total Capacitance

Fig. 4 Maximum Non-Repetitive Peak Forward Surge Current

NOT RECOMMENDED FOR NEW DESIGN, Use B3X0 Series
Ordering Information  (Note 4 & 5)

<table>
<thead>
<tr>
<th>Device*</th>
<th>Packaging</th>
<th>Shipping</th>
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<tbody>
<tr>
<td>SKxx-7</td>
<td>SMC</td>
<td>3000/Tape &amp; Reel</td>
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</table>

Notes: 4. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

* xx = Device type, e.g. 32 through 36.

5. For lead free terminal plating part number, please add "-F" suffix to part number above. Example: SK36-7-F.

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