SR2020CT THRU SR2060CT

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

Features
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- High capability
- Low power loss, high efficiency
- High current capability, low forward voltage
- High surge capacity
- For use in low voltage, high frequency inverters, free wheeling and polarity protection applications

Mechanical Data
- Case: Molded plastic body, TO-220
- Epoxy: UL 94V-O rate flame retardant
- Terminals: Leads solderable per MIL-STD-202, method 208
- Polarity: As marked
- Mounting Position: Any

Absolute Maximum Ratings and Characteristics
Ratings at 25°C unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.

<table>
<thead>
<tr>
<th>Symbols</th>
<th>SR2020CT</th>
<th>SR2030CT</th>
<th>SR2040CT</th>
<th>SR2050CT</th>
<th>SR2060CT</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum recurrent peak reverse voltage V_{RMM}</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 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 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) I_{(AV)}</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) I_{FSM}</td>
<td>250</td>
<td></td>
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<td>A</td>
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<tr>
<td>Maximum forward voltage at 10 A DC V_{F}</td>
<td>0.55</td>
<td></td>
<td>0.70</td>
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<td></td>
<td>V</td>
</tr>
<tr>
<td>Maximum reverse current at rated blocking voltage T_{C} = 25°C I_{R}</td>
<td>1.0</td>
<td></td>
<td>50</td>
<td></td>
<td></td>
<td>mA</td>
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<tr>
<td>T_{C} = 100°C</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Typical junction capacitance (Note 1) C_{J}</td>
<td>600</td>
<td></td>
<td>400</td>
<td></td>
<td></td>
<td>pF</td>
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<tr>
<td>Typical thermal resistance (Note 2) R_{JIC}</td>
<td>2.0</td>
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<td></td>
<td></td>
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<td>°C/W</td>
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<tr>
<td>Operating junction temperature range T_{J}</td>
<td>-55 to +125</td>
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<td>-55 to +150</td>
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<td>°C</td>
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<tr>
<td>Storage temperature range T_{S}</td>
<td>-55 to +150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>°C</td>
</tr>
</tbody>
</table>

Notes:
1. Measured at 1MH z and applied reverse voltage of 4 Volts DC
2. Thermal Resistance from Junction to case per leg

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РАДИОТЕХ
Typical reverse characteristics per leg

- Instantaneous reverse current, mA
- Percent of rated peak reverse voltage, %

Typical forward characteristics per leg

- Instantaneous forward voltage, V
- Instantaneous forward current, A

Forward current derating curve

- Average forward current, A
- Case temperature, °C

Maximum non-repetitive peak forward surge current per leg

- Peak forward surge current, A
- Number of cycles at 60Hz

Typical junction capacitance per leg

- Junction capacitance, pF
- Reverse voltage, V

Dated: 04/09/2003