FEATURES
* High reliability
* Low switching loss
* Low forward voltage drop
* High current capability
* High switching capability

MECHANICAL DATA
* Epoxy: Device has UL flammability classification 94V-O
* Case: Molded plastic
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting: position: Any
* Weight: 1.18 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>SR320</th>
<th>SR330</th>
<th>SR340</th>
<th>SR350</th>
<th>SR360</th>
<th>SR380</th>
<th>SR3100</th>
<th>SR3150</th>
<th>SR3200</th>
<th>UNITS</th>
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</thead>
<tbody>
<tr>
<td>VRRM</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>80</td>
<td>80</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>Volts</td>
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<td>VRMS</td>
<td>14</td>
<td>21</td>
<td>28</td>
<td>35</td>
<td>42</td>
<td>56</td>
<td>70</td>
<td>105</td>
<td>140</td>
<td>Volts</td>
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<tr>
<td>VDC</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>80</td>
<td>80</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>Volts</td>
</tr>
<tr>
<td>I0</td>
<td>3.0</td>
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<td></td>
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<td></td>
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<tr>
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<td>80</td>
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<td></td>
<td>Amps</td>
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<tr>
<td>RθJA</td>
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<td>40</td>
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<td>10</td>
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<td></td>
<td>°C/W</td>
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<tr>
<td>CJC</td>
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<td>200</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>pF</td>
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<tr>
<td>TSTG</td>
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<td>-55 to 150</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<td>°C</td>
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</table>

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>SYMBOL</th>
<th>SR320</th>
<th>SR330</th>
<th>SR340</th>
<th>SR350</th>
<th>SR360</th>
<th>SR380</th>
<th>SR3100</th>
<th>SR3150</th>
<th>SR3200</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Instantaneous Forward Voltage at 3.0A DC</td>
<td>Vf</td>
<td>55</td>
<td>75</td>
<td>.85</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Volts</td>
</tr>
<tr>
<td>Maximum Average Reverse Current @ TA = 25°C</td>
<td>IR</td>
<td>0.2</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>mA</td>
</tr>
<tr>
<td>at Rated DC Blocking Voltage @ TA = 100°C</td>
<td>IR</td>
<td>2</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>mA</td>
</tr>
</tbody>
</table>

NOTES:
1. Thermal Resistance: At 9.5mm lead lengths, PCB mounted.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
RATING AND CHARACTERISTICS CURVES (SR320 THRU SR3200)

**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**

- Single Phase Half Wave
- 60Hz Inductive or Resistive Load
- 0.375" (9.5mm) Lead Length

**FIG.2 TYPICAL REVERSE CHARACTERISTICS**

- Percent of Rated Peak Reverse Voltage (%)
- Lead Temperature, \( ^\circ C \)

**FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

- Instantaneous Forward Voltage, \( V \)
- Instantaneous Reverse Current, \( mA \)

**FIG.4 TYPICAL JUNCTION CAPACITANCE**

- Junction Capacitance, \( pF \)
- Reversal Voltage, \( V \)

**FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

- Peak Forward Surge Current, \( A \)
- Number of Cycles at 60Hz

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**NOTE:**

- Single Phase Half Wave
- JEDEC Method
- 8.3mS Single Half Sine Wave
- JEDEC Method

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**TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

- Instantaneous Forward Current, \( A \)
- Lead Temperature, \( ^\circ C \)

**TYPICAL REVERSE CHARACTERISTICS**

- Percent of Rated Peak Reverse Voltage (%)
- Lead Temperature, \( ^\circ C \)

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**SR320 ~ SR3200**

- \( ^\circ C \)
- Pulse width=300\( \mu \)S
- 1% Duty Cycle

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**SR380 ~ SR3200**

- \( ^\circ C \)
- Pulse width=300\( \mu \)S
- 1% Duty Cycle

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**SR320 ~ SR340**

- \( ^\circ C \)
- Pulse width=300\( \mu \)S
- 1% Duty Cycle

---

**SR350 ~ SR360**

- \( ^\circ C \)
- Pulse width=300\( \mu \)S
- 1% Duty Cycle

---

**SR380 ~ SR3200**

- \( ^\circ C \)
- Pulse width=300\( \mu \)S
- 1% Duty Cycle
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