S2A THRU S2M
SURFACE MOUNT GENERAL RECTIFIER
Reverse Voltage - 50 to 1000 Volts  Forward Current - 2.0 Amperes

DO-214AA

FEATURES
The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
For surface mounted applications
Low reverse leakage
Built-in strain relief, ideal for automated placement
High forward surge current capability
High temperature soldering guaranteed:
250°C/10 seconds at terminals

MECHANICAL DATA
Case: JEDEC DO-214AA molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

<table>
<thead>
<tr>
<th>SYMBOLS</th>
<th>S2A</th>
<th>S2B</th>
<th>S2D</th>
<th>S2G</th>
<th>S2J</th>
<th>S2K</th>
<th>S2M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum repetitive peak reverse voltage</td>
<td>V_{RRM}</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
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<tr>
<td>Maximum RMS voltage</td>
<td>V_{RMS}</td>
<td>35</td>
<td>70</td>
<td>140</td>
<td>280</td>
<td>420</td>
<td>560</td>
</tr>
<tr>
<td>Maximum DC blocking voltage</td>
<td>V_{DC}</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
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<tr>
<td>Maximum average forward rectified current at T_{J}=55°C</td>
<td>I_{AV}</td>
<td>2.0</td>
<td></td>
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<tr>
<td>Peak forward surge current</td>
<td>I_{FSM}</td>
<td>50.0</td>
<td></td>
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<tr>
<td>8.3ms single half sine-wave superimposed on rated load (JEDEC Method)</td>
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<tr>
<td>Maximum instantaneous forward voltage at 2.0A</td>
<td>V_{f}</td>
<td>1.1</td>
<td></td>
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<tr>
<td>Maximum DC reverse current at rated DC blocking voltage</td>
<td>I_{R}</td>
<td>5.0</td>
<td>200.0</td>
<td></td>
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<tr>
<td>Typical junction capacitance (NOTE 1)</td>
<td>C_{J}</td>
<td>30.0</td>
<td></td>
<td></td>
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<tr>
<td>Typical thermal resistance (NOTE 2)</td>
<td>R_{θJA}</td>
<td>50.0</td>
<td></td>
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<tr>
<td>Operating junction and storage temperature range</td>
<td>T_{J,STG}</td>
<td>-65 to +175</td>
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</tbody>
</table>

**Note:**
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas
RATINGS AND CHARACTERISTIC CURVES S2A THRU S2M

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

Note: Specification is subject to change without further notice. For more details and updates, please visit our website.