S3A-C THRU S3M-C
SURFACE MOUNT GENERAL RECTIFIER

Reverse Voltage - 50 to 1000 Volts  Forward Current - 3.0 Amperes

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
Suffix -C means DO-214AB (SMC) package

MECHANICAL DATA
Case: JEDEC DO-214AB molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.22 grams

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>S3A</th>
<th>S3B</th>
<th>S3D</th>
<th>S3G</th>
<th>S3J</th>
<th>S3K</th>
<th>S3M</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum repetitive peak reverse voltage</td>
<td>VRRM</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>1000</td>
</tr>
<tr>
<td>Maximum RMS voltage</td>
<td>VRMS</td>
<td>35</td>
<td>70</td>
<td>140</td>
<td>280</td>
<td>420</td>
<td>560</td>
<td>700</td>
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<tr>
<td>Maximum DC blocking voltage</td>
<td>VDC</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>1000</td>
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<tr>
<td>Maximum average forward rectified current at TL=75°C</td>
<td>I(5V)</td>
<td>3.0</td>
<td></td>
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<tr>
<td>Peak forward surge current</td>
<td>IFSM</td>
<td></td>
<td></td>
<td></td>
<td>100.0</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 3.0A</td>
<td>VF</td>
<td></td>
<td></td>
<td></td>
<td>1.1</td>
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<tr>
<td>Maximum DC reverse current at rated DC blocking voltage</td>
<td>IR</td>
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<td></td>
<td>10.0</td>
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<tr>
<td>Typical junction capacitance (NOTE 1)</td>
<td>CJ</td>
<td></td>
<td></td>
<td>60.0</td>
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<tr>
<td>Typical thermal resistance (NOTE 2)</td>
<td>RΘJA</td>
<td></td>
<td></td>
<td>50.0</td>
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<tr>
<td>Operating junction and storage temperature range</td>
<td>TJ,TSTG</td>
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<td>-65 to +175</td>
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</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 S3A THRU S3M

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.