Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

Micro Commercial Components (MCC)
S2A

For any questions, you can email us directly:
sales@integrated-circuit.com
## Features
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- For Surface Mount Applications
- Low Thermal Resistance
- Easy Pick And Place
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Power Dissipation : 2.35W

## Maximum Ratings
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Thermal Resistance: 16°C/W Junction To Lead
- Power Dissipation : 2.35W

### Electrical Characteristics @ 25°C Unless Otherwise Specified

<table>
<thead>
<tr>
<th>MCC Catalog Number</th>
<th>Device Marking</th>
<th>Maximum Recurrent Peak Reverse Voltage</th>
<th>Maximum RMS Voltage</th>
<th>Maximum DC Blocking Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2A</td>
<td>S2A</td>
<td>50V</td>
<td>35V</td>
<td>50V</td>
</tr>
<tr>
<td>S2B</td>
<td>S2B</td>
<td>100V</td>
<td>70V</td>
<td>100V</td>
</tr>
<tr>
<td>S2D</td>
<td>S2D</td>
<td>200V</td>
<td>140V</td>
<td>200V</td>
</tr>
<tr>
<td>S2G</td>
<td>S2G</td>
<td>400V</td>
<td>280V</td>
<td>400V</td>
</tr>
<tr>
<td>S2J</td>
<td>S2J</td>
<td>600V</td>
<td>420V</td>
<td>600V</td>
</tr>
<tr>
<td>S2K</td>
<td>S2K</td>
<td>800V</td>
<td>560V</td>
<td>800V</td>
</tr>
<tr>
<td>S2M</td>
<td>S2M</td>
<td>1000V</td>
<td>700V</td>
<td>1000V</td>
</tr>
</tbody>
</table>

*Pulse test: Pulse width 300 µsec, Duty cycle 2%


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**NOT RECOMMENDED FOR NEW DESIGNS USE S2A-LTP~S2M-LTP SERIES**

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**S2A THRU S2M**

**2 Amp Silicon Rectifier 50 to 1000 Volts**

**DO-214AA (HSMB) (Round Lead)**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>DIM</th>
<th>INCHES</th>
<th>MM</th>
<th>MIN</th>
<th>MAX</th>
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<td>A</td>
<td>0.78</td>
<td>1.98</td>
<td>1.96</td>
<td>2.95</td>
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<tr>
<td>B</td>
<td>0.35</td>
<td>0.89</td>
<td>0.50</td>
<td>0.80</td>
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<tr>
<td>C</td>
<td>0.02</td>
<td>0.05</td>
<td>0.05</td>
<td>0.10</td>
</tr>
<tr>
<td>D</td>
<td>0.01</td>
<td>0.05</td>
<td>0.05</td>
<td>0.10</td>
</tr>
<tr>
<td>E</td>
<td>0.000</td>
<td>0.005</td>
<td>0.000</td>
<td>0.010</td>
</tr>
<tr>
<td>F</td>
<td>0.065</td>
<td>1.65</td>
<td>1.65</td>
<td>2.32</td>
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<tr>
<td>G</td>
<td>0.350</td>
<td>8.90</td>
<td>8.90</td>
<td>22.10</td>
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<tr>
<td>H</td>
<td>0.100</td>
<td>2.54</td>
<td>2.54</td>
<td>6.45</td>
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<tr>
<td>J</td>
<td>0.130</td>
<td>3.30</td>
<td>3.30</td>
<td>8.39</td>
</tr>
</tbody>
</table>

**SUGGESTED SOLDER PAD LAYOUT**

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**www.mccsemi.com**
S2A thru S2M

Figure 1
Typical Forward Characteristics

Figure 2
Forward Derating Curve

Figure 3
Junction Capacitance

Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

Junction Capacitance - pF versus Reverse Junction Potential (Applied V + 0.7 Volts) - Volts
S2A thru S2M

Figure 4
Peak Forward Surge Current

Amps

Cycles

Figure 5
New SMB Assembly

Round Lead Process

Peak Forward Surge Current - Ampereversus
Number Of Cycles At 60Hz - Cycles
Ordering Information:

<table>
<thead>
<tr>
<th>Device</th>
<th>Packing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number-TP</td>
<td>Tape&amp;Reel: 3Kpcs/Reel</td>
</tr>
</tbody>
</table>

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