









## 5.0 Amp. Surface Mount Glass Passivated Rectifier

|  |   |                                  |                         |  |  |
|--|---|----------------------------------|-------------------------|--|--|
| <p><b>DO-214AB / SMC</b></p>  | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><b>Voltage</b><br/>50 V to 1000 V</td> <td style="text-align: center;"><b>Current</b><br/>5.0 A</td> </tr> <tr> <td colspan="2" style="text-align: center;">  </td> </tr> </table> <p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>Low profile package</li> <li>Ideal for automated placement</li> <li>Low forward voltage drop</li> <li>High forward surge current capability</li> <li>Solder dip 260°C, 10s</li> <li>Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC</li> <li>Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C</li> <li>Low leakage current</li> </ul> <div style="display: flex; justify-content: flex-end; align-items: center; gap: 10px;">     </div> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li><b>Case:</b> DO-214AB (SMC). Epoxy meets UL 94V-0 flammability rating.</li> <li><b>Polarity:</b> Color band denotes cathode end.</li> <li><b>Terminals:</b> Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test. HE3 suffix for high reliability grade (AEC Q101 qualified), meets JESD 201 class 2 whisker test.</li> </ul> <p><b>TYPICAL APPLICATIONS</b></p> <p>Used in general purpose rectification of power supplies, inverters, converters and freewheeling diodes for consumer, automotive and telecommunication.</p> | <b>Voltage</b><br>50 V to 1000 V | <b>Current</b><br>5.0 A |  |  |
| <b>Voltage</b><br>50 V to 1000 V   | <b>Current</b><br>5.0 A   |                                  |                         |  |  |
|                              |   |                                  |                         |  |  |

### Maximun Ratings and Electrical Characteristics at 25°C

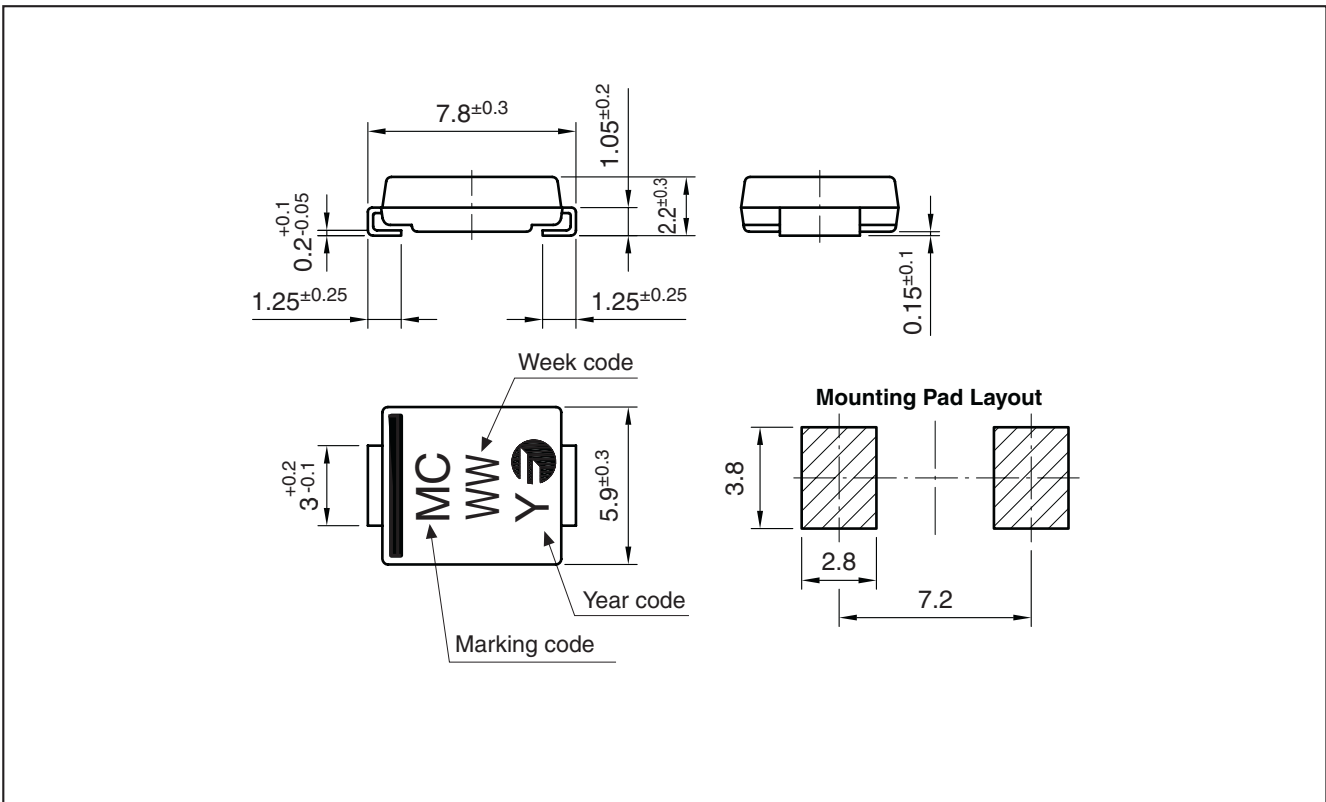
|                 |   | FS5A               | FS5B | FS5D | FS5G                | FS5J | FS5K | FS5M |
|-----------------|---|--------------------|------|------|---------------------|------|------|------|
| Marking Code    |   | O1                 | O2   | O3   | O4                  | O5   | O6   | O7   |
| $V_{RRM}$       | Maximum Recurrent Peak Reverse Voltage (V)                                  | 50                 | 100  | 200  | 400                 | 600  | 800  | 1000 |
| $V_{RMS}$       | Maximum RMS Voltage (V)   | 35                 | 70   | 140  | 280                 | 420  | 560  | 700  |
| $V_{DC}$        | Maximum DC Blocking Voltage (V)   | 50                 | 100  | 200  | 400                 | 600  | 800  | 1000 |
| $I_{F(AV)}$     | Forward current at $T_C = 75^\circ C$                                       | 5.0 A              |      |      |                     |      |      |      |
| $I_{FSM}$       | 8.3 ms. peak forward surge current<br>(Jedec Method)                        | 100 A              |      |      |                     |      |      |      |
| $V_F$           | Maximum Instantaneous Forward Voltage at 5.0A                               | 1.15 V             |      |      |                     |      |      |      |
| $I_R$           | Maximum DC Reverse Current<br>at Rated DC Blocking Voltage                  | $T_C = 25^\circ C$ |      |      | $T_C = 125^\circ C$ |      |      |      |
|                 |   | 10 $\mu A$         |      |      | 250 $\mu A$         |      |      |      |
| $C_j$           | Typical Junction Capacitance (1MHz; -4V)                                    | 60 pF              |      |      |                     |      |      |      |
| $R_{th(j-l)}$   | Typical Thermal Resistance<br>(5x5 mm <sup>2</sup> x 130 $\mu$ Copper Area) | 13 °C/W            |      |      |                     |      |      |      |
| $R_{th(j-a)}$   |   | 47 °C/W            |      |      |                     |      |      |      |
| $T_j - T_{stg}$ | Operating Junction and Storage Temperature Range                            | -55 to + 150 °C    |      |      |                     |      |      |      |

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**Ordering information**

| PREFERRED P/N | PACKAGE CODE | DELIVERY MODE              | BASE QUANTITY | UNIT WEIGHT (g) |
|---------------|--------------|----------------------------|---------------|-----------------|
| FS5J TRTB     | TRTB         | 13" diameter tape and reel | 3,500         | 0.201           |
| FS5J HE3 TRTB | TRTB         | 13" diameter tape and reel | 3,500         | 0.201           |

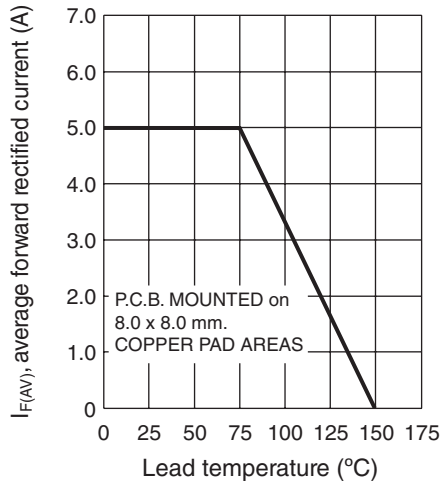
**Package Outline Dimensions: (mm) DO-214AB / SMC**



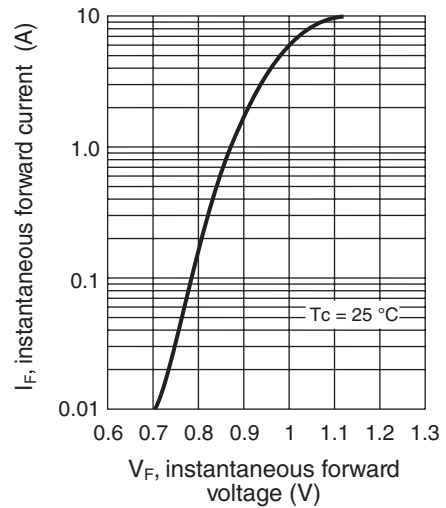
5.0 Amp. Surface Mount Glass Passivated Rectifier

Ratings and Characteristics (Ta 25 °C unless otherwise noted)

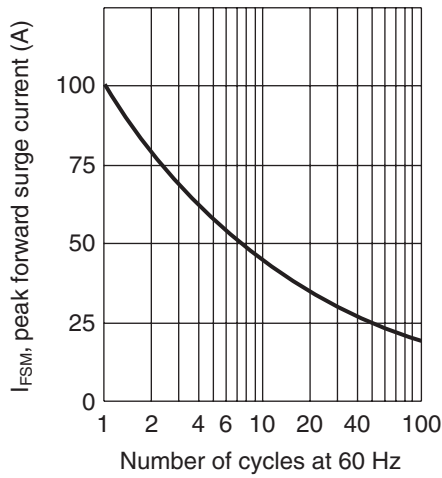
FORWARD CURRENT DERATING CURVE



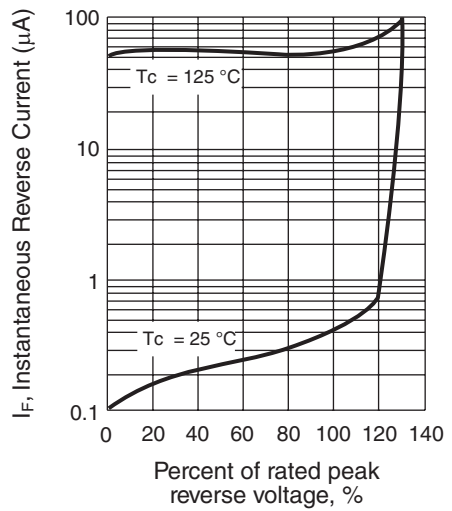
TYPICAL FORWARD CHARACTERISTIC



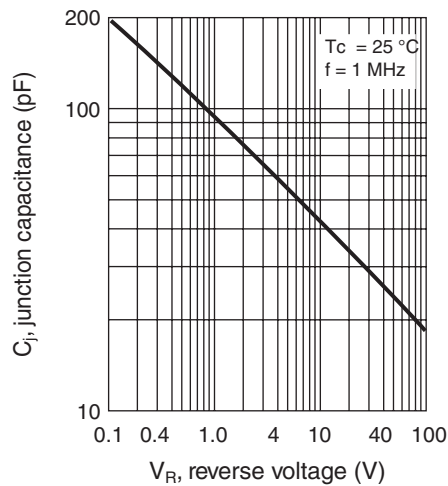
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE



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