





## 5.0 Amp. Surface Mount Glass Passivated Rectifier

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|--|--|
| <p style="text-align: center;"><b>DO-214AB (SMC)</b></p>  | <p style="text-align: center;"> <b>Voltage</b><br/>50 V to 1000 V         <b>Current</b><br/>5.0 A       </p> <p style="text-align: center;"><b>HYPERECTIFIER</b>®</p>   |
|  |  |
|  |  |
|  |  |
|  | <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>• AEC-Q101 qualified</li> <li>• Component in accordance to RoHS 2011/65/EU 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> <p style="text-align: right;"> <br/> <br/> <br/> <b>RoHS COMPLIANT</b> </p> |
|  | <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.</li> <li>• <b>HE3 suffix</b> for high reliability grade, 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>   |

## Maximun Ratings and Electrical Characteristics at 25°C

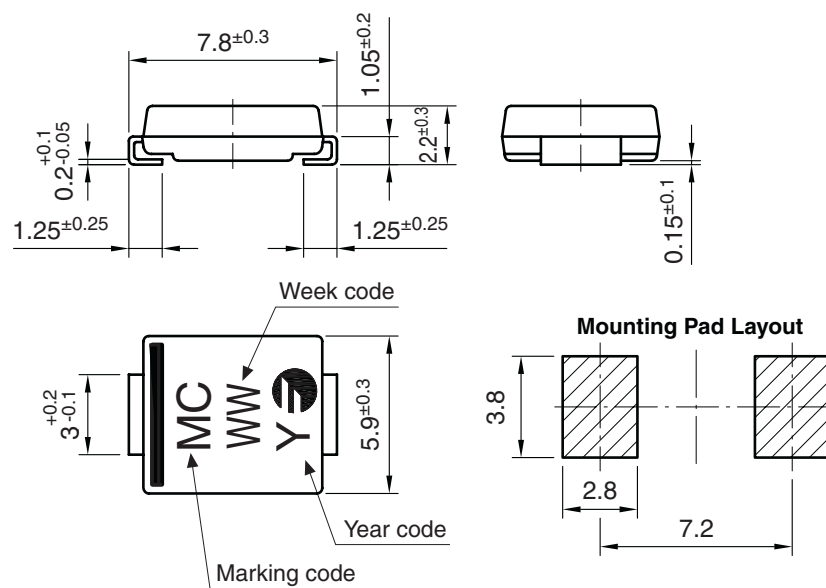
|                                |   | FS5A   | FS5B | FS5D | FS5G | FS5J | FS5K | FS5M |
|--------------------------------|---|--|------|------|------|------|------|------|
| Marking Code                   |   | O1   | O2   | O3   | O4   | O5   | O6   | O7   |
| $V_{RRM}$                      | Maximum 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 $T_C = 75^\circ\text{C}$                                 | 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                  | $T_C = 25^\circ\text{C}$ 10 $\mu\text{A}$<br>$T_C = 125^\circ\text{C}$ 250 $\mu\text{A}$ |      |      |      |      |      |      |
| $C_j$                          | Typical Junction Capacitance (1MHz; -4V)                                    | 60 pF  |      |      |      |      |      |      |
| $R_{th(j-l)}$<br>$R_{th(j-a)}$ | Typical Thermal Resistance<br>(5x5 mm <sup>2</sup> x 130 $\mu$ Copper Area) | 13 $^\circ\text{C/W}$<br>47 $^\circ\text{C/W}$   |      |      |      |      |      |      |
| $T_j - T_{stg}$                | Operating Junction and Storage Temperature Range                            | -55 to + 150 $^\circ\text{C}$  |      |      |      |      |      |      |

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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           |

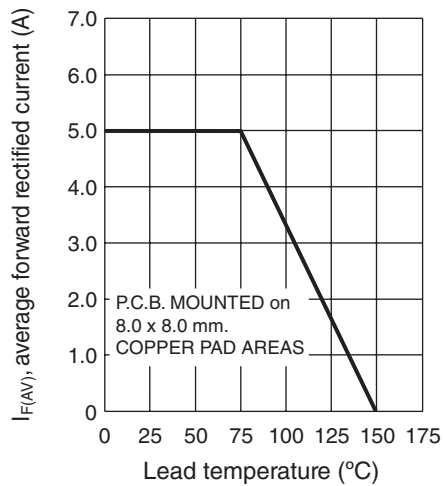
### Package Outline Dimensions: (mm) DO-214AB (SMC)



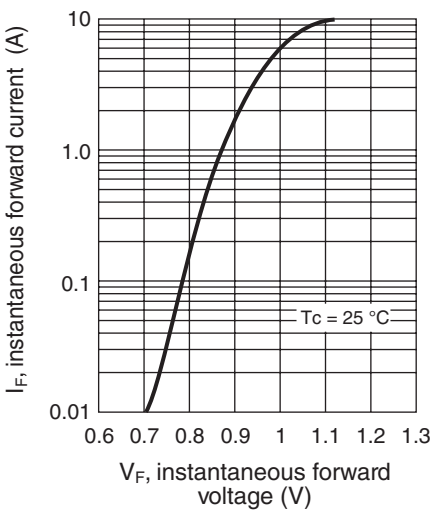
5.0 Amp. Surface Mount Glass Passivated Rectifier

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

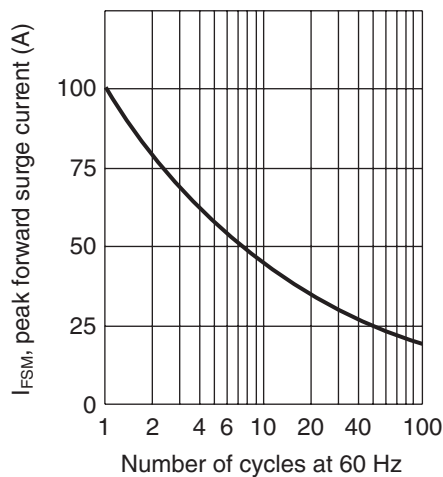
FORWARD CURRENT DERATING CURVE



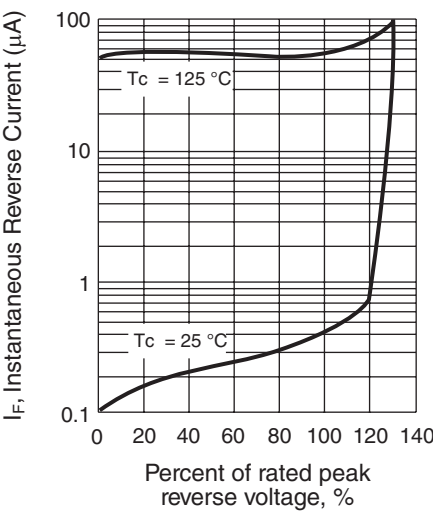
TYPICAL FORWARD CHARACTERISTIC



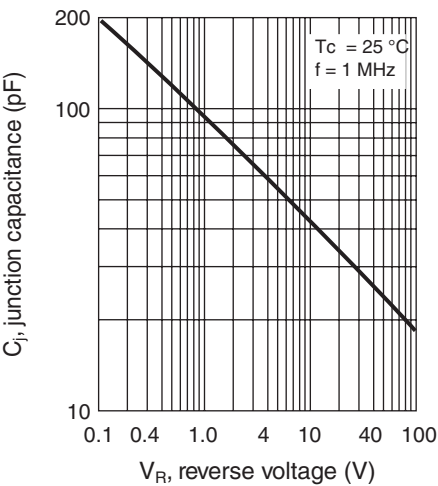
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE



**5.0 Amp. Surface Mount Glass Passivated Rectifier**

## Disclaimer

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