




**1.5 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier**

<p><b>DO-214AA (SMB)</b></p> 	<p><b>Voltage</b> 50 V to 1000 V</p> <p><b>Current</b> 1.5 A</p> <p><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 power losses, high efficiency</li> <li>• High surge current capability</li> <li>• Cavity-free glass-passivated junction</li> <li>• Low forward voltage drop</li> <li>• Solder dip 260°C, 10s</li> <li>• AEC-Q101 qualified</li> <li>• Fast switching for high efficiency</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> </ul>	
  <p><b>RoHS COMPLIANT</b></p>	
<p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>• <b>Case:</b> DO-214AA (SMB). 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> </ul>	
<p><b>TYPICAL APPLICATIONS</b></p> <p>For use in fast switching rectification of power supply, inverters, converters, and freewheeling diodes for consumer, and telecommunication.</p>	

**Maximum Ratings and Electrical Characteristics at 25 °C**

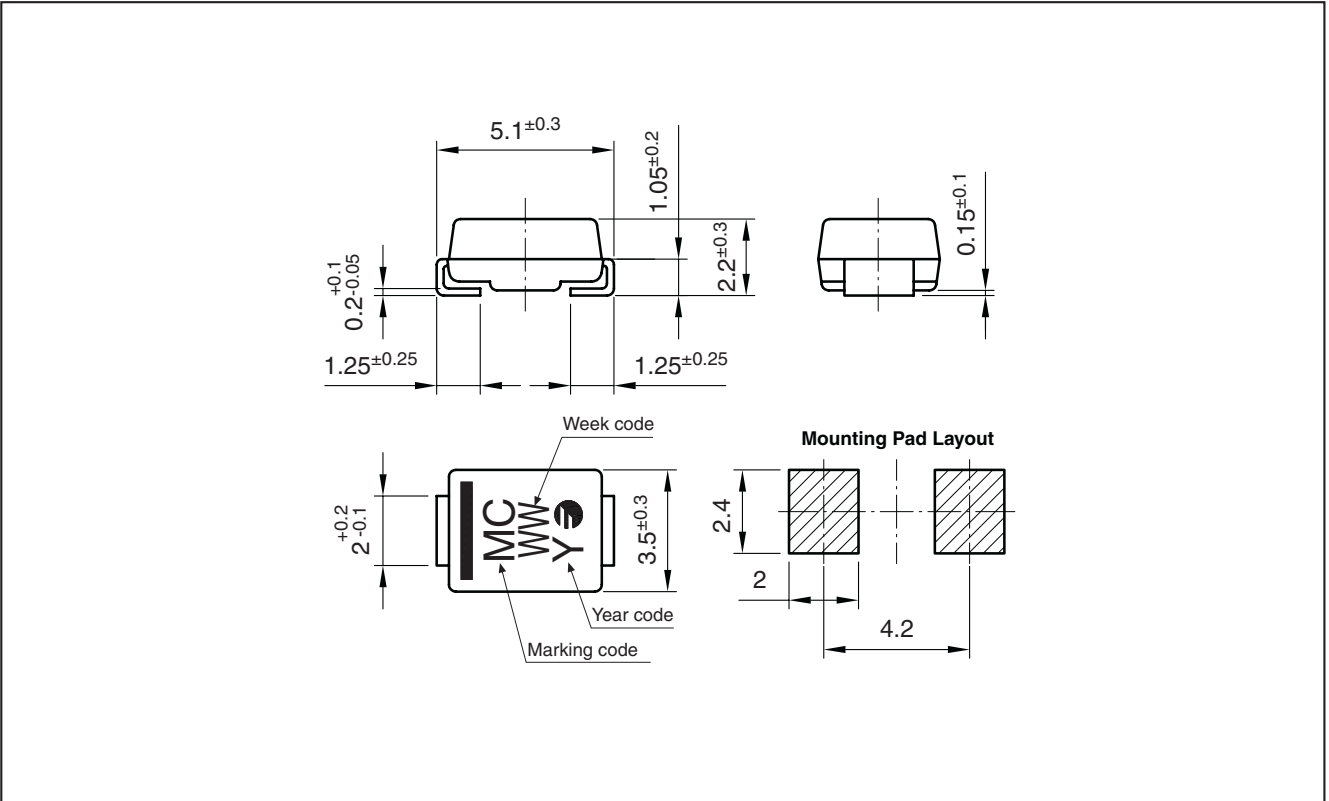
		FRS2A	FRS2B	FRS2D	FRS2G	FRS2J	FRS2K	FRS2M
Marking Code		G1	G2	G3	G4	G5	G6	G7
V <sub>RRM</sub>	Maximum Recurrent Peak Reverse Voltage (V)	50	100	200	400	600	800	1000
V <sub>RMS</sub>	Maximum RMS Voltage (V)	35	70	140	280	420	560	700
V <sub>DC</sub>	Maximum DC Blocking Voltage (V)	50	100	200	400	600	800	1000
I <sub>F(AV)</sub>	Forward current at T <sub>L</sub> = 100 °C	1.5 A						
I <sub>FSM</sub>	8.3 ms. peak forward surge current (Jedec Method)	50 A						
V <sub>F</sub>	Maximum Instantaneous Forward Voltage at 1.5 A	1.3 V						
I <sub>R</sub>	Maximum DC Reverse Current T <sub>j</sub> = 25 °C at Rated DC Blocking Voltage T <sub>j</sub> = 125 °C	5 µA 200 µA						
T <sub>rr</sub>	Maximum Reverse Recovery Time (0.5/1/0.25A)	150 ns				250 ns	300 ns	
C <sub>j</sub>	Typical Junction Capacitance (1MHz; -4V)	35 pF						
R <sub>th(j-l)</sub> R <sub>th(j-a)</sub>	Typical thermal resistance (5x5 mm <sup>2</sup> x 130 µm Copper Area)	20 °C/W 60 °C/W						
T <sub>j</sub> - T <sub>stg</sub>	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)
FRS2D TRTB	TRTB	13" diameter tape and reel	3,000	0.0823

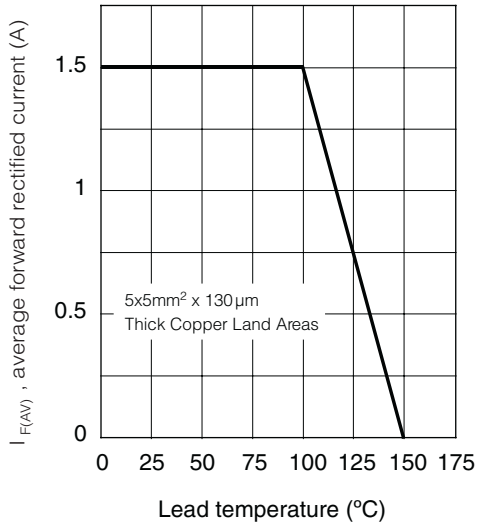
**Package Outline Dimensions: (mm) DO-214AA (SMB)**



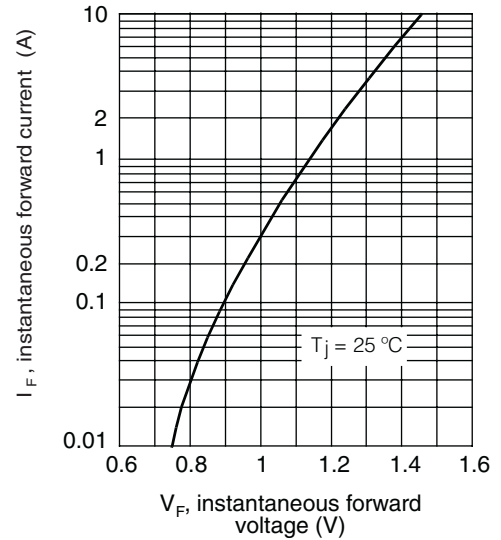
**1.5 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier**

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

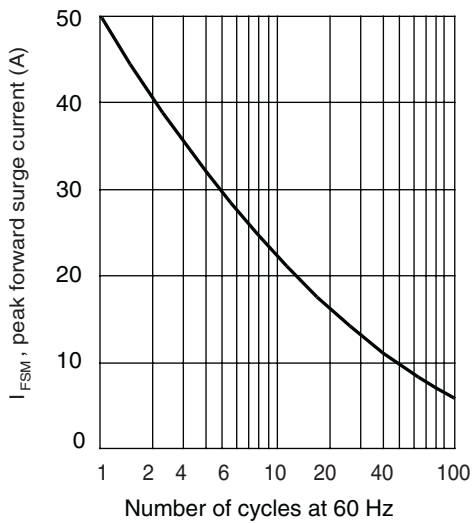
**FORWARD CURRENT DERATING CURVE**



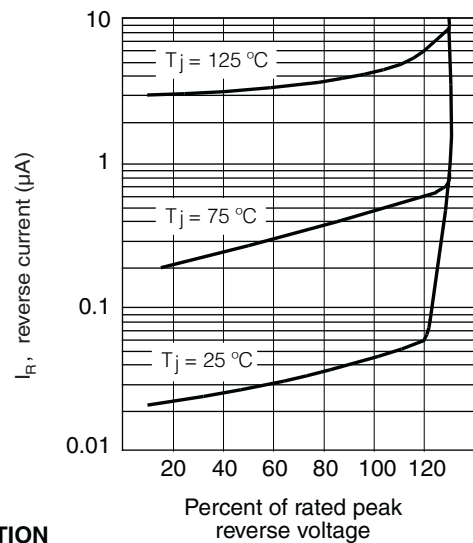
**TYPICAL FORWARD CHARACTERISTIC**



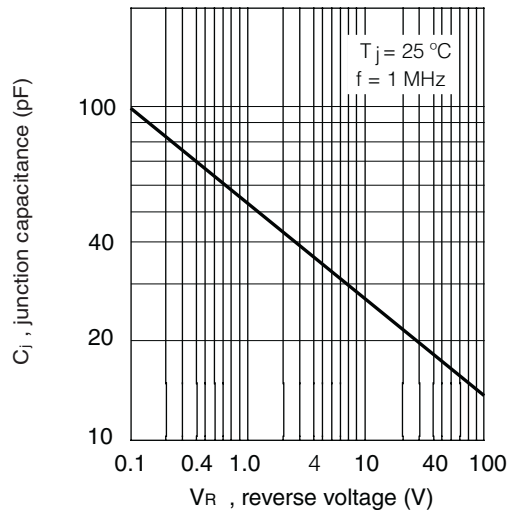
**MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT**



**TYPICAL REVERSE CHARACTERISTIC**



**TYPICAL JUNCTION CAPACITANCE**



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## Revision History

Date	Revision	Description of Changes
Jan-2003	0	Original Data Sheet
May-2016	1	Format update

## Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

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