1.5 Amp. Surface Mount Glass Passivated Rectifier

DO-214AA (SMB)

Voltage
400 V to 1000 V

Current
1.5 A

HYPERECTIFIER®

FEATURES

- Low profile package
- Ideal for automated placement
- Low power losses, high efficiency
- High surge current capability
- Cavity-free glass-passivated junction
- Low forward voltage drop
- Solder dip 260°C, 10s
- AEC-Q101 qualified
- Component in accordance to RoHS 2011/65/EC and WEEE 2002/96/EC
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C

AUTOMOTIVE GRADE Available

Pb

e3

RoHS COMPLIANT

HALOGEN FREE

MECHANICAL DATA

- **Case:** DO-214AA (SMB). Epoxy meets UL 94V-0 flammability rating.
- **Polarity:** Color band denotes cathode end.
- **Terminals:** 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, meets JESD 201 class 2 whisker test.

TYPICAL APPLICATIONS

Used in general purpose rectification of power supplies, inverters, converters and freewheeling diodes application.

Maximum Ratings and Electrical Characteristics at 25 ºC

		FS2G	FS2J	FS2K	FS2M
Marking Code		S4	S5	S6	S7
Halogen Free Marking Code		1N	1P	1Q	1R
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	400	600	800	1000
V_{RMS}	Maximum RMS Voltage (V)	280	420	560	700
V_{DC}	Maximum DC Blocking Voltage (V)	400	600	800	1000
$I_{F(AV)}$	Forward Current @ T_C = 100 °C	1.5 A			
I_{FSM}	8.3 ms. peak forward surge current (Jedec Method)	50 A			
V_F	Maximum Instantaneous Forward Voltage @ 1.5A	1.10 V			
I_R	Maximum DC Reverse Current @Tc = 25 °C at Rated DC Blocking Voltage @Tc = 125 °C	1 µA 125 µA			
t_{rr}	Typical Reverse Recovery Time (0.5/1/0.25A)	4 µs			
C_j	Typical Junction Capacitance (1MHz; -4V)	30 pF			
$R_{th\ (j-c)}$ $R_{th\ (j-a)}$	Typical Thermal Resistance (5x5 mm^2 x 130 µ Copper Area)	20 °C/W 60 °C/W			
T_j - T_{stg}	Operating Junction and Storage Temperature Range	-55 to + 150 °C			

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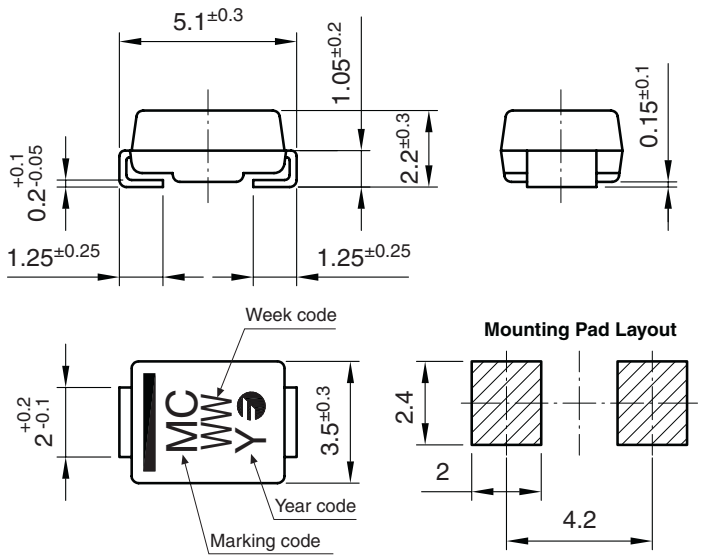
Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FS2M TRTB	TRTB	13" diameter tape and reel	3,200	0.082
FS2M HF TRTB	TRTB	13" diameter tape and reel	3,200	0.082
FS2M HE3 TRTB	TRTB	13" diameter tape and reel	3,200	0.082

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



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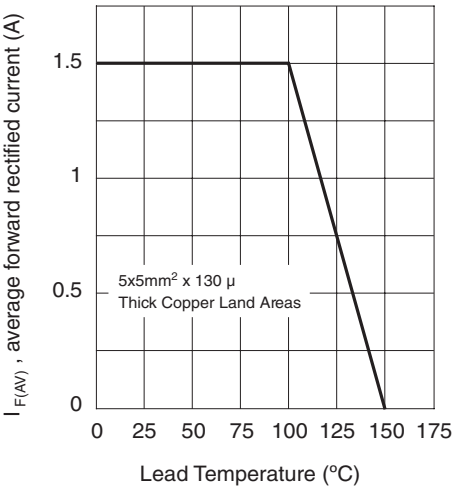
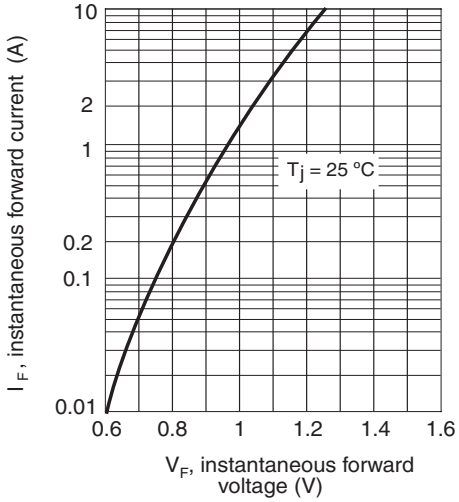
Ratings and Characteristics (Ta 25 ºC unless otherwise noted)

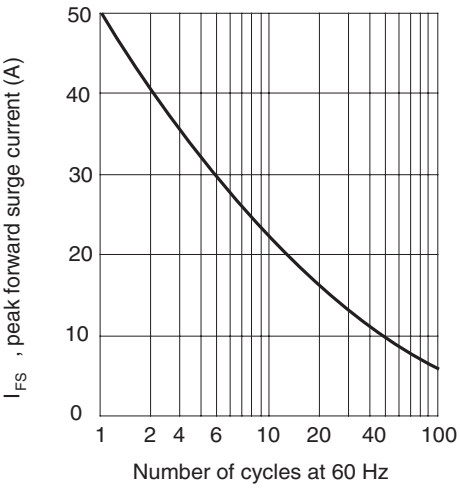
FORWARD CURRENT DERATING CURVE



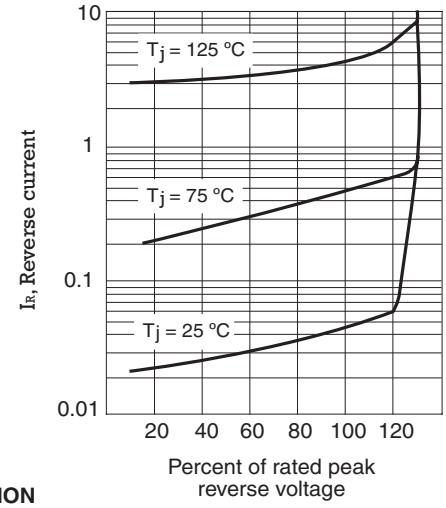
TYPICAL FORWARD CHARACTERISTIC



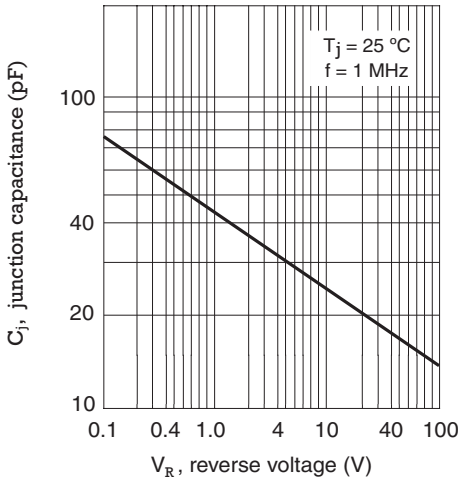
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE



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Revision History

Date	Revision	Description of Changes
15-Feb-2013	0	Original Data Sheet
29-Jan-2014	1	Included HE3
21-Jul-2014	2	Eliminated Ref.: FS2A, FS2B and FS2D

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

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