





1.0 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier

<p>DO-214AC (SMA)</p> 	<p>Voltage 50 V to 1000 V</p> <p>Current 1.0 A</p> <p>HYPERECTIFIER®</p>
<p>FEATURES</p> <ul style="list-style-type: none"> • 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 • Fast switching for high efficiency • Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC • Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C 	
   <p>RoHS COMPLIANT</p>	
<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: DO-214AC (SMA). 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. 	
<p>TYPICAL APPLICATIONS</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

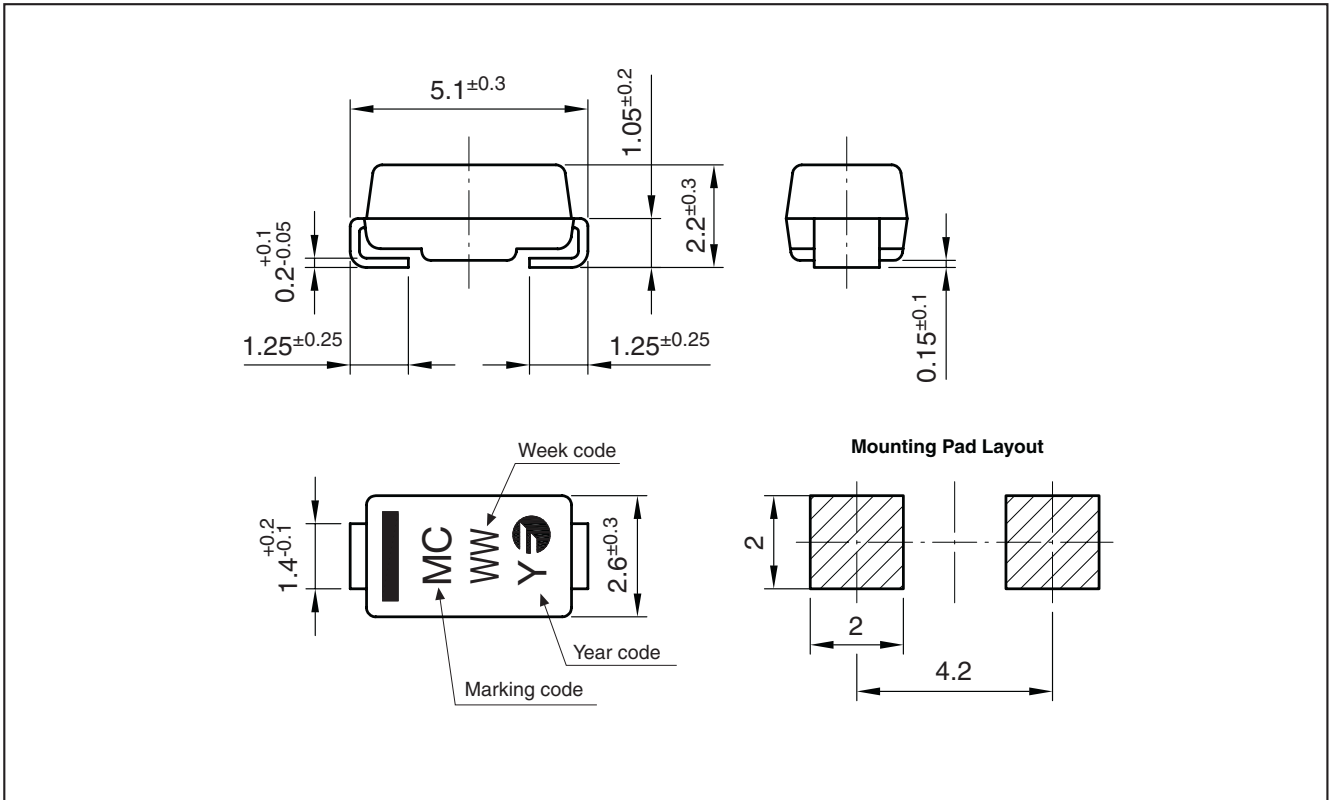
		FRS1A	FRS1B	FRS1D	FRS1G	FRS1J	FRS1K	FRS1M
Marking Code		F1	F2	F3	F4	F5	F6	F7
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	50	100	200	400	600	800	1000
V_{RMS}	Maximum RMS Voltage (V)	35	70	140	280	420	560	700
V_{DC}	Maximum DC Blocking Voltage (V)	50	100	200	400	600	800	1000
$I_{F(AV)}$	Forward current at $T_L = 110\text{ °C}$	1.0 A						
I_{FSM}	8.3 ms. peak forward surge current (Jedec Method)	30 A						
V_F	Maximum Instantaneous Forward Voltage at 1.0 A	1.3 V						
I_R	Maximum DC Reverse Current $T_j = 25\text{ °C}$ at Rated DC Blocking Voltage $T_j = 125\text{ °C}$	5 μ A 50 μ A						
T_{rr}	Maximum Reverse Recovery Time (0.5/1/0.25A)	150 ns				250 ns	500 ns	
C_j	Typical Junction Capacitance (1MHz; -4V)	8 pF						
$R_{th(j-l)}$ $R_{th(j-a)}$	Typical thermal resistance (5x5 mm ² x 130 μ m Copper Area)	27 °C/W 75 °C/W						
$T_j - T_{stg}$	Operating Junction and Storage Temperature Range	-55 to + 150 °C						

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Ordering information

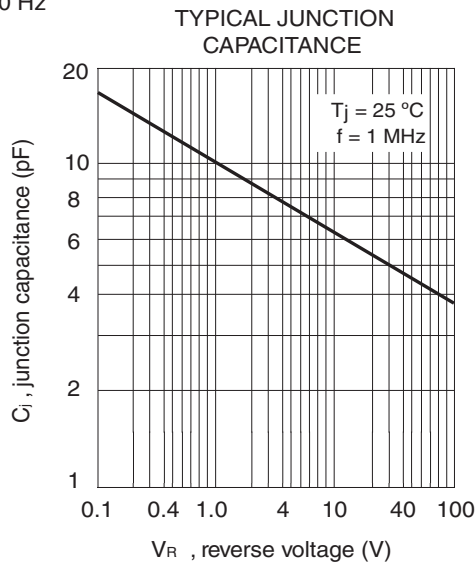
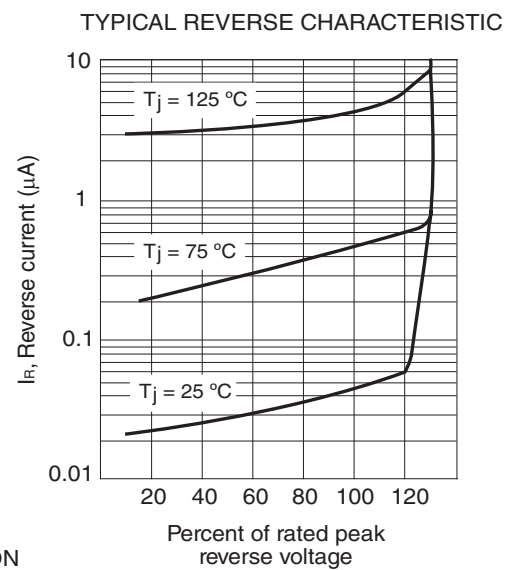
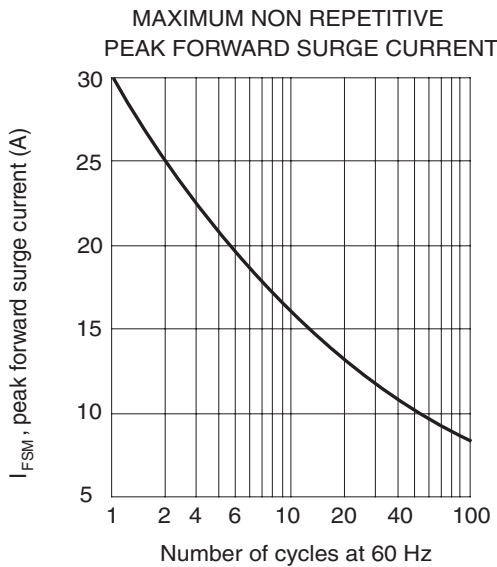
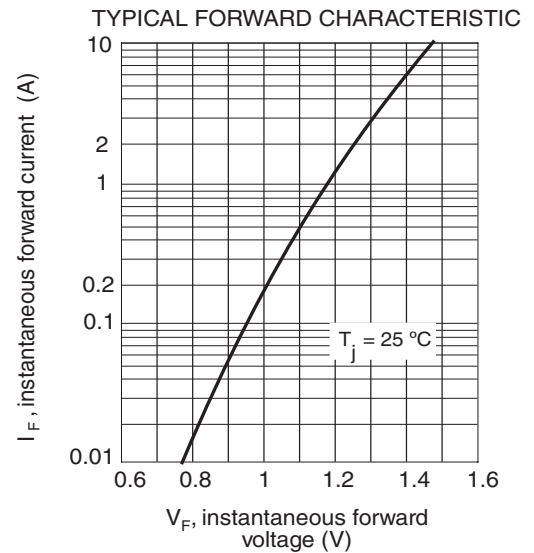
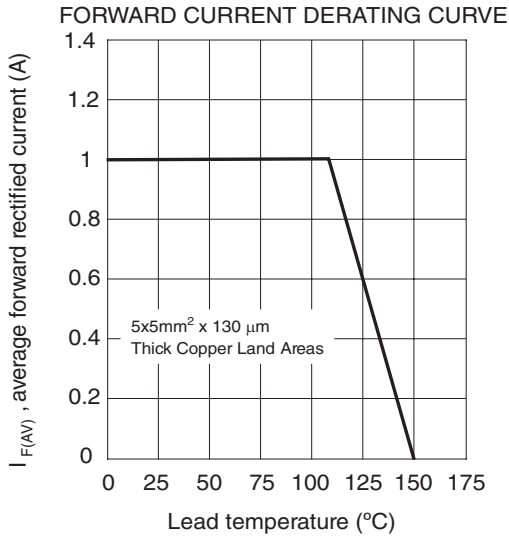
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FRS1J TRTB	TRTB	13" diameter tape and reel	7,500	0.060
FRS1J HE3 TRTB	TRTB	13" diameter tape and reel	7,500	0.060

Package Outline Dimensions: (mm) DO-214AC (SMA)



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



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Date	Revision	Description of Changes
15-Feb-2013	0	Original Data Sheet
2-May-2016	1	Included HE3

Disclaimer

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