





3.0 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier

<p>DO-214AB (SMC)</p> 	<p>Voltage 50 V to 1000 V</p>	<p>Current 3.0 A</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 			
  RoHS COMPLIANT			
<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> Case: DO-214AB (SMC). 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 			
<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

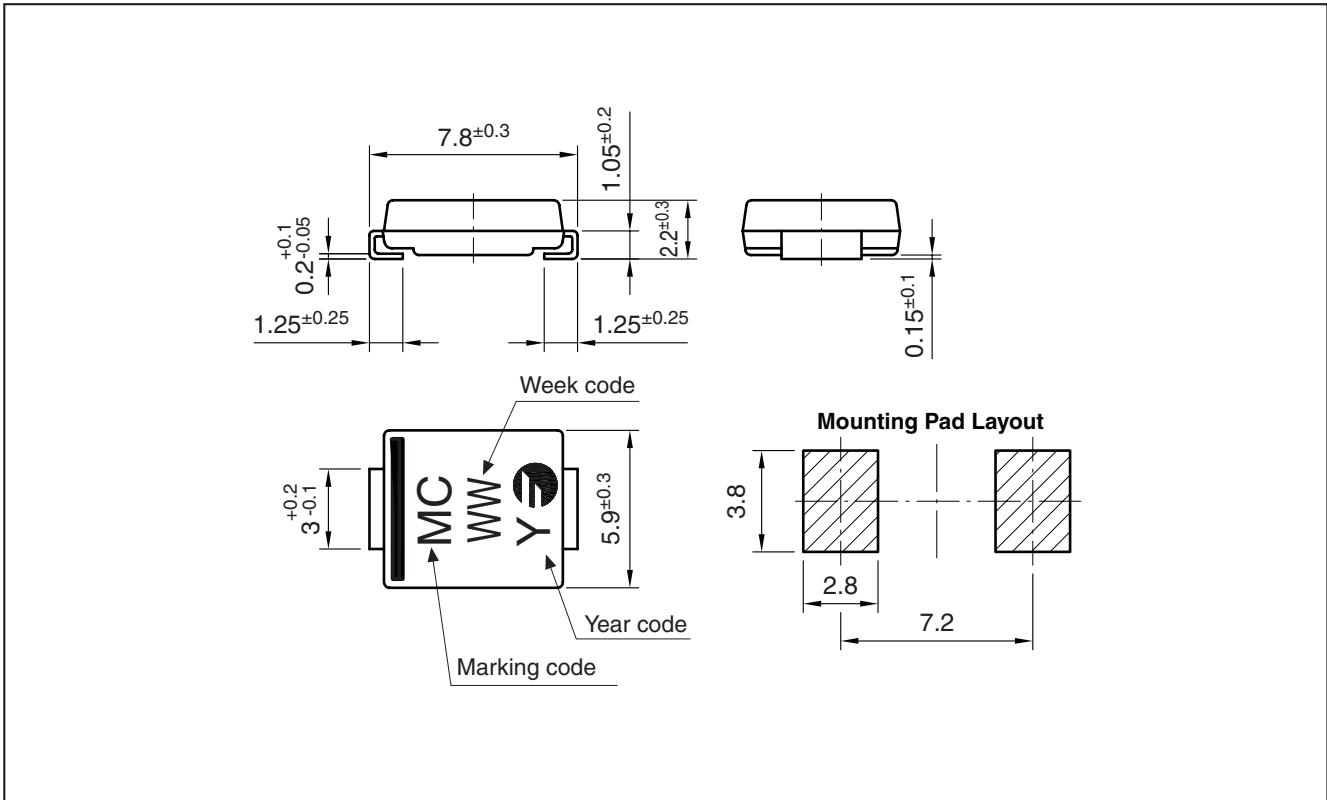
		FRS3A	FRS3B	FRS3D	FRS3G	FRS3J	FRS3K	FRS3M
Marking Code		J1	J2	J3	J4	J5	J6	J7
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	50	100	200	400	600	800	1000
V_{RMS}	Maximum RMS Voltage (V)	35	70	140	280	420	560	700
V_{DC}	Maximum DC Blocking Voltage (V)	50	100	200	400	600	800	1000
$I_{F(AV)}$	Forward current at $T_L = 75\text{ °C}$	3.0 A						
I_{FSM}	8.3 ms. peak forward surge current (Jedec Method)	100 A						
V_F	Maximum Instantaneous Forward Voltage at 3.0 A	1.3 V						
I_R	Maximum DC Reverse Current $T_j = 25\text{ °C}$ at Rated DC Blocking Voltage $T_j = 125\text{ °C}$	10 μ A 250 μ A						
T_{rr}	Maximum Reverse Recovery Time (0.5/1/0.25A)	150 ns				250 ns	300 ns	
C_j	Typical Junction Capacitance (1MHz; -4V)	60 pF						
$R_{th(j-l)}$ $R_{th(j-a)}$	Typical thermal resistance (5x5 mm ² x 130 μ m Copper Area)	15 °C/W 50 °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)
FRS3D TRTB	TRTB	13" diameter tape and reel	3,500	0.201

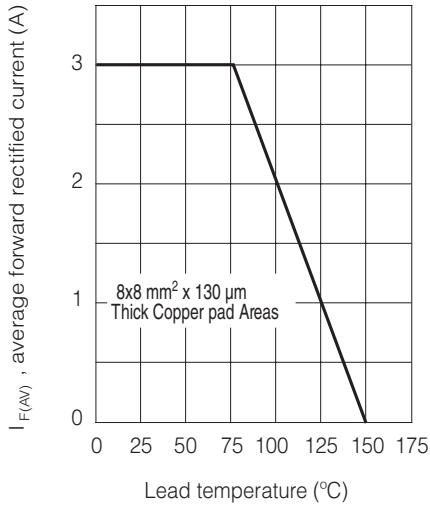
Package Outline Dimensions: (mm) DO-214AB (SMC)



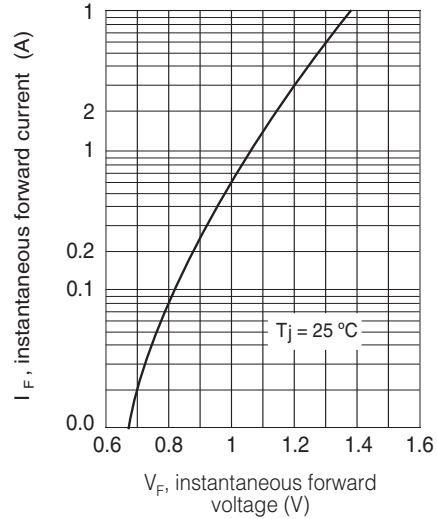
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

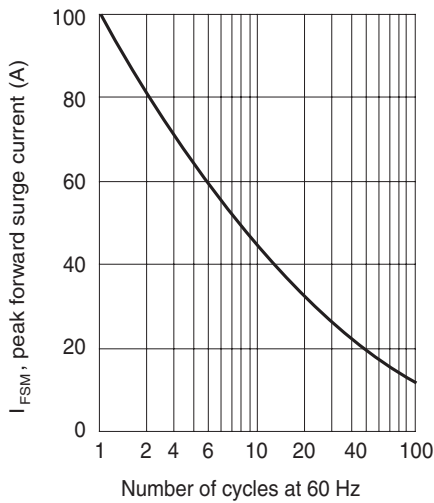
FORWARD CURRENT DERATING CURVE



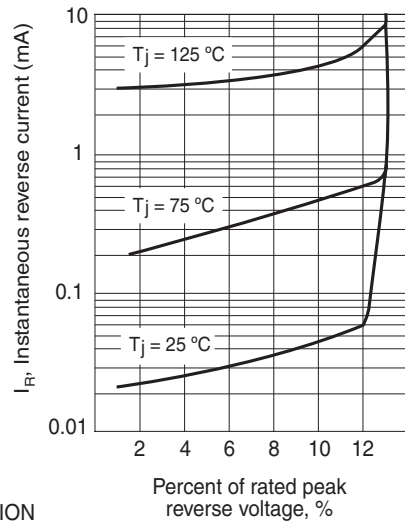
TYPICAL FORWARD CHARACTERISTIC



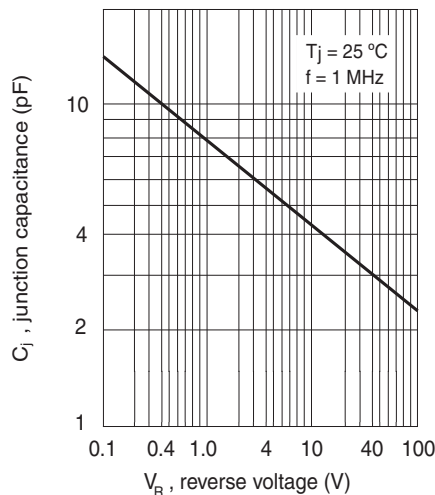
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE



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