




3.0 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier

DO-214AB (SMC) 	Voltage 50 V to 1000 V	Current 3.0 A	
			
	FEATURES <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 		
	MECHANICAL DATA <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 		
TYPICAL APPLICATIONS For use in fast switching rectification of power supply, inverters, converters, and freewheeling diodes for consumer, and telecommunication.			

Maximum Ratings and Electrical Characteristics at 25 °C

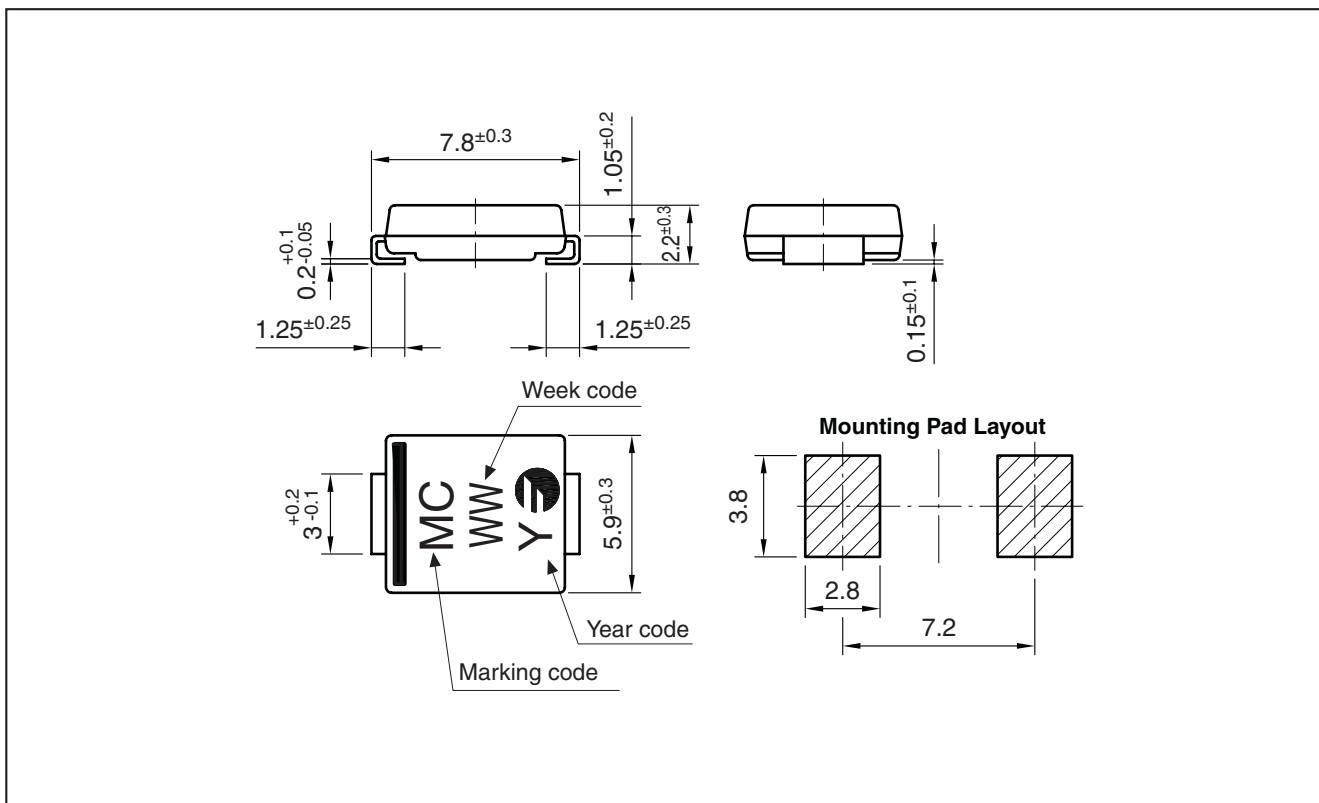
		FRS3A	FRS3B	FRS3D	FRS3G	FRS3J	FRS3K	FRS3M
Marking Code		J1	J2	J3	J4	J5	J6	J7
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	50	100	200	400	600	800	1000
V_{RMS}	Maximum RMS Voltage (V)	35	70	140	280	420	560	700
V_{DC}	Maximum DC Blocking Voltage (V)	50	100	200	400	600	800	1000
$I_{F(AV)}$	Forward 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

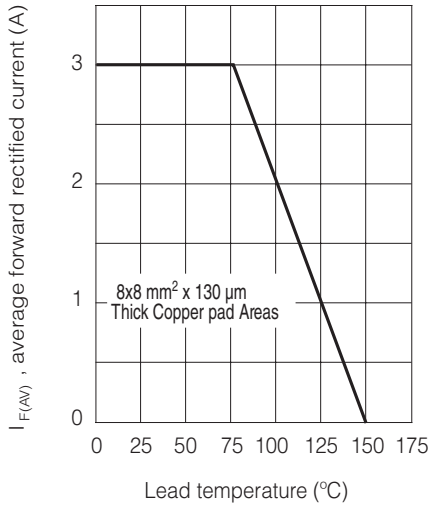
Package Outline Dimensions: (mm) DO-214AB (SMC)



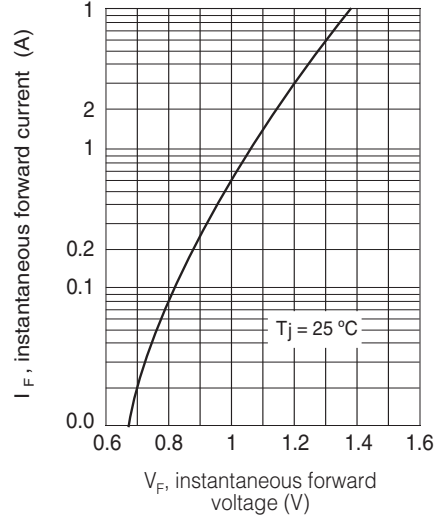
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

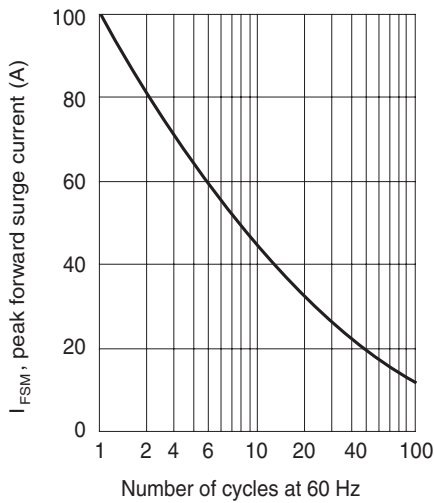
FORWARD CURRENT DERATING CURVE



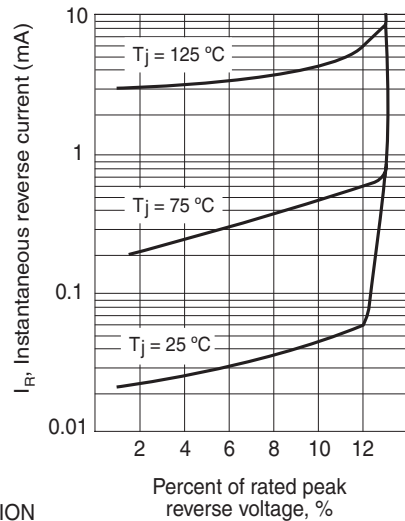
TYPICAL FORWARD CHARACTERISTIC



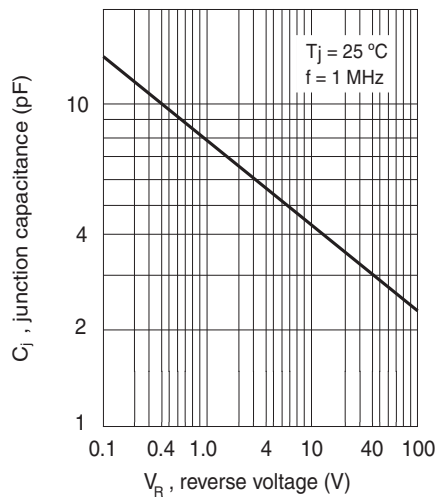
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE



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