






3.0 Amp. Surface Mount Glass Passivated Ultrafast Recovery Rectifier

DO-214AB (SMC) 	Voltage 50 to 600 V	Current 3.0 A	
			
	FEATURES <ul style="list-style-type: none"> • Low profile package • Ideal for automated placement • Ultrafast recovery time for high efficiency • Low power losses • Low forward voltage drop • High forward surge current capability • Solder dip 260°C, 10s • AEC-Q101 qualified • 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
	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. • HE3 suffix for high reliability grade, meets JESD 201 class 2 whisker test. 		
TYPICAL APPLICATIONS Used in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer, automotive and telecommunication.			

Maximun Ratings and Electrical Characteristics at 25°C

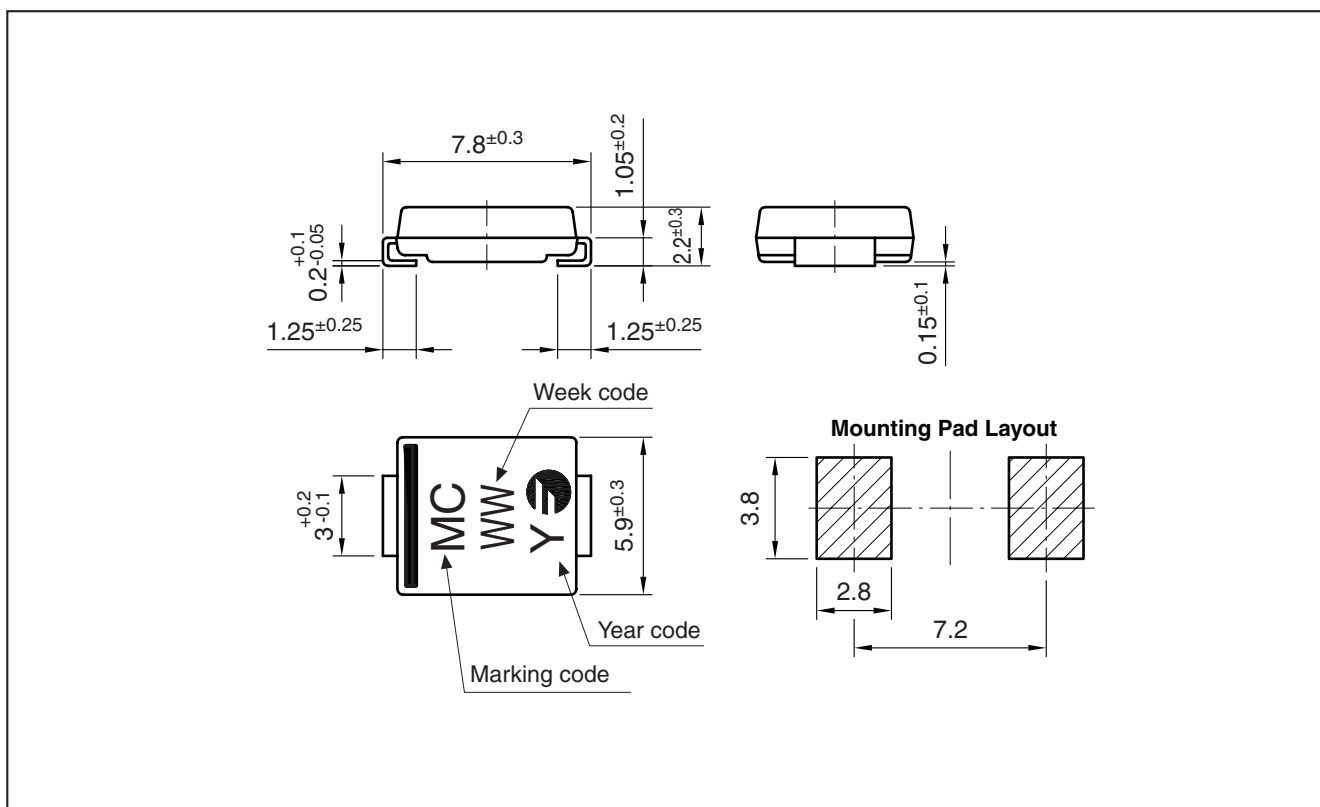
		FES3A	FES3B	FES3D	FES3F	FES3G	FES3J
Marking Code		W1	W2	W3	W4	W5	W6
V _{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	50	100	200	300	400	600
V _{RMS}	Maximum RMS Voltage (V)	35	70	140	210	280	420
V _{DC}	Maximum DC Blocking Voltage (V)	50	100	200	300	400	600
I _{F(AV)}	Forward current at T _L = 100 °C	3.0 A					
I _{FSM}	8.3 ms. peak forward surge current (Jedec Method)	100 A					
V _F	Maximum Instantaneous Forward Voltage at 3.0A	0.95 V			1.25 V		
I _R	Maximum DC Reverse Current at Rated DC Blocking Voltage T _j = 25 °C T _j = 100 °C	10 µA 500 µA					
T _{rr}	Maximum Reverse Recovery Time (0.5/1/0.25A)	50 ns					
C _j	Typical Junction Capacitance (1MHz; -4V)	45 pF					
R _{th(j-c)} R _{th(j-a)}	Maximum Thermal Resistance (8x8 mm ² x 130 µm Copper Area)	12 °C/W 47 °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)
FES3D TRTB	TRTB	13" diameter tape and reel	3,500	0.201
FES3D TRTS	TRTS	7" diameter tape and reel	850	0.201
FES3D HE3 TRTB	TRTB	13" diameter tape and reel	3,500	0.201

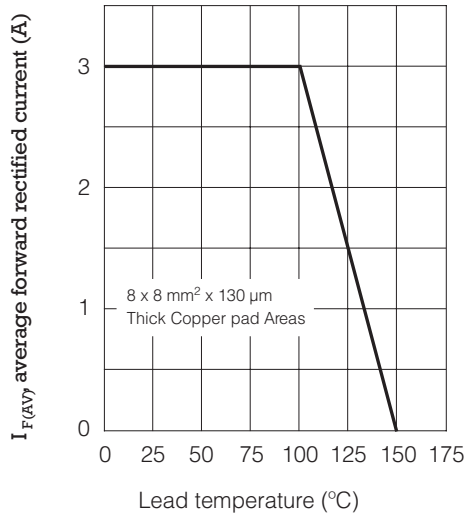
Package Outline Dimensions: (mm) DO-214AB (SMC)



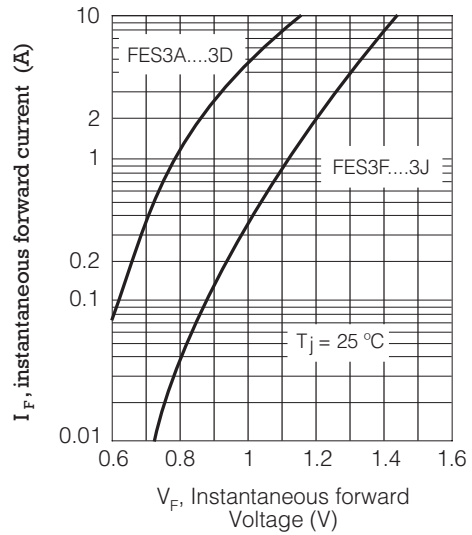
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

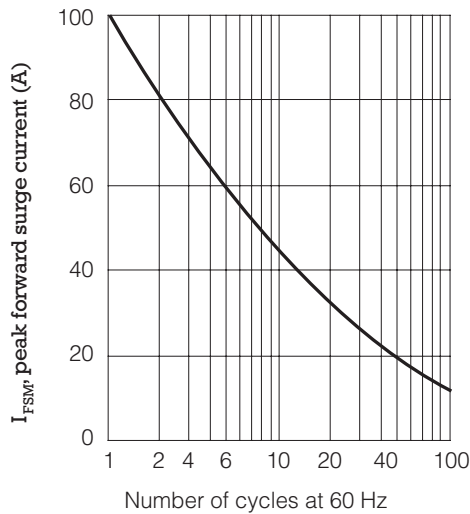
FORWARD CURRENT DERATING CURVE



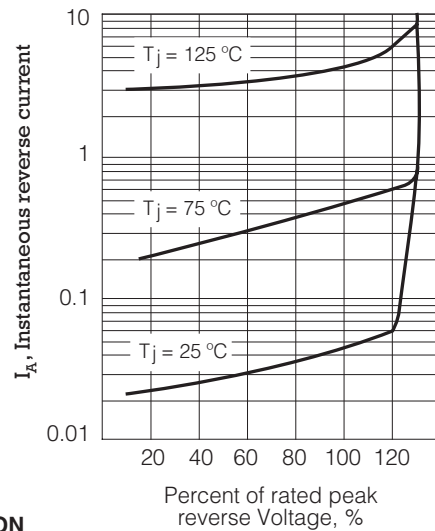
TYPICAL FORWARD CHARACTERISTIC



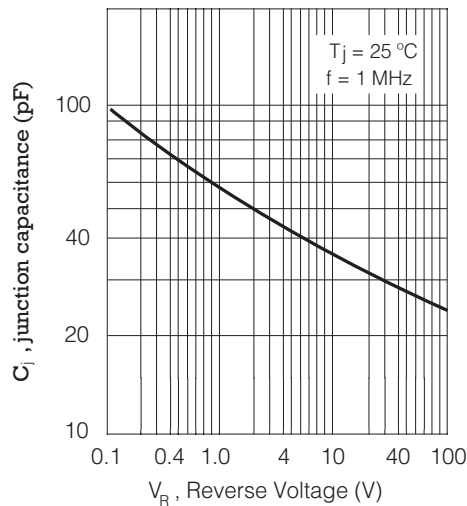
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE



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Revision History

Date	Revision	Description of Changes
15-Jan-2013	0	Original Data Sheet
15-Sep-2015	1	HE3 Version included

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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