





3.0 Amp. Surface Mount Schottky Barrier Rectifier

DO-214AB / SMC 	Voltage 20 V to 150 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 • Guarding for overvoltage protection • Low forward voltage drop • 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 (AEC Q101 qualified), meets JESD 201 class 2 whisker test. 		
	TYPICAL APPLICATIONS Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.		

Maximum Ratings and Electrical Characteristics at 25 °C

		FSS 32	FSS 33	FSS 34	FSS 35	FSS 36	FSS 39	FSS 310	FSS 315	
Marking code		C1	C2	C3	C4	C5	C6	C7	C8	
V _{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	20	30	40	50	60	90	100	150	
V _{RMS}	Maximum RMS Voltage (V)	14	21	28	35	42	63	70	105	
V _{DC}	Maximum DC Blocking Voltage (V)	20	30	40	50	60	90	100	150	
I _{F(AV)}	Maximum Average Forward Rectified Current at T _C (See graphic)	3.0 A								
I _{FSM}	8.3 ms. Peak Forward Surge Current (Jedec Method)	100 A			70 A					
T _j	Operating Temperature Range	-55°C to +125°C			-55°C to +150°C					
T _{stg}	Storage Temperature Range	-55°C to +150°C								

Electrical Characteristics at Tamb = 25 °C

V _F	Maximum Instantaneous Forward Voltage (Note 1) I _F = 3.0 A @ 25 °C @ 100 °C	0.5 V	0.75 V	0.85 V	0.95 V
		0.4 V	0.65 V	0.70 V	0.80 V
I _R	Maximum DC Reverse Current T _j = 25 °C at Rated DC Blocking Voltage T _j = 125°C (Note 3)	0.5 mA		0.1 mA	
		10 mA	5.0 mA	0.5 mA	
C _j	Typical Junction Capacitance	600 pF	290 pF	200 pF	
R _{th(j-c)} R _{th(j-a)}	Typical Thermal Resistance (Note 2)	17 °C/W 55 °C/W			

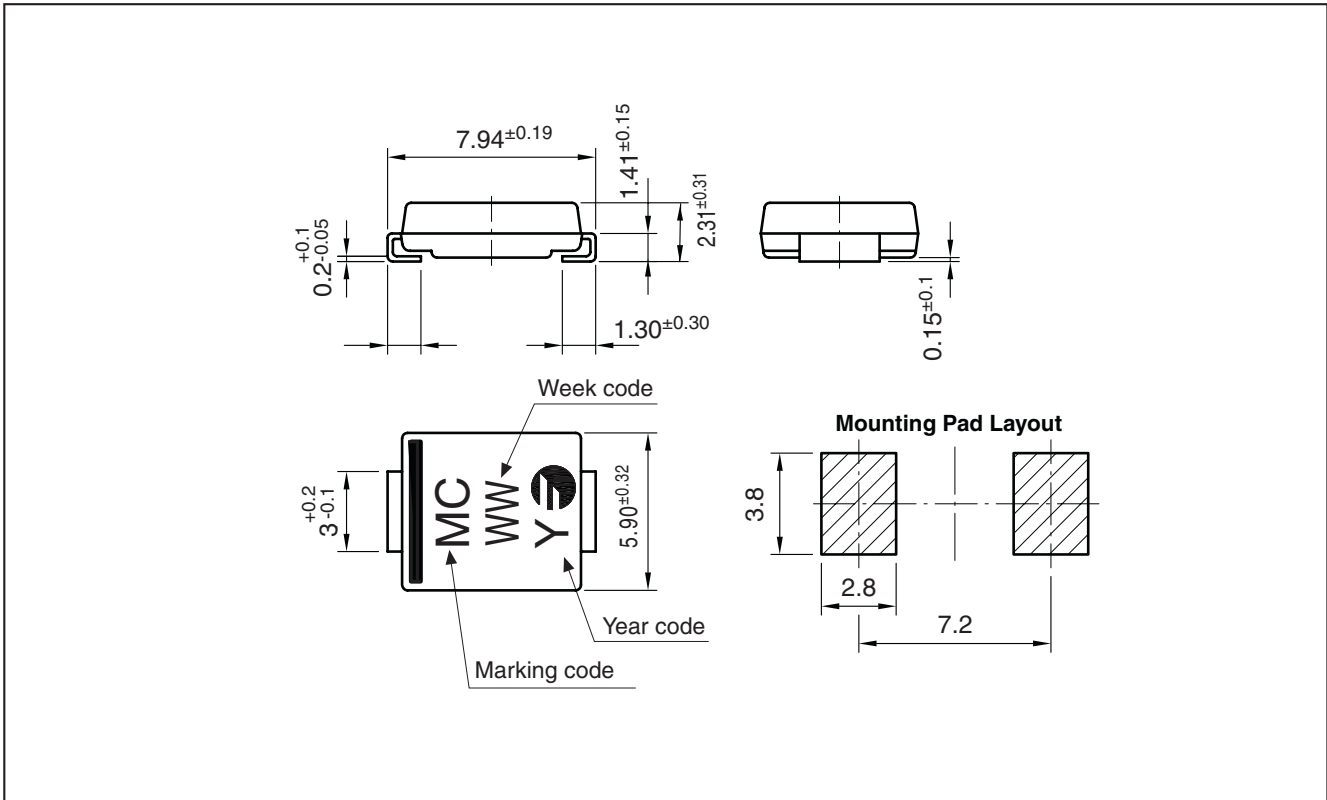
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle
 2. Thermal Resistance from Junction to Case per diode
 3. Pulse test: Pulse width ≤ 40ms

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Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FSS32 TRTB	TRTB	13" diameter tape and reel	3,500	0.201
FSS32 TRTS	TRTS	7" diameter tape and reel	850	0.201
FSS32 HE3 TRTB	TRTB	13" diameter tape and reel	3,500	0.201

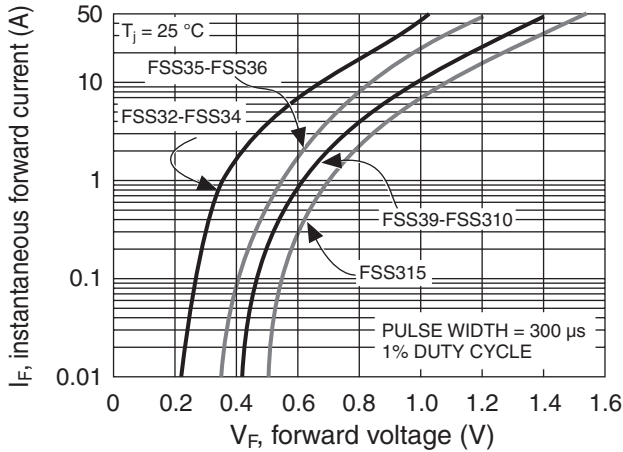
Package Outline Dimensions: (mm) DO-214AB / SMC



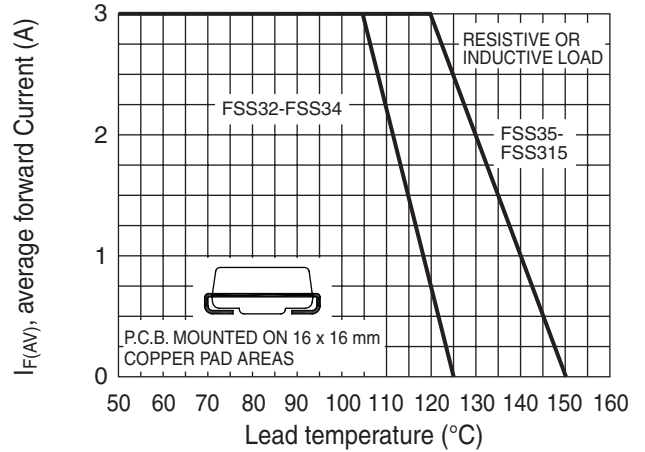
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

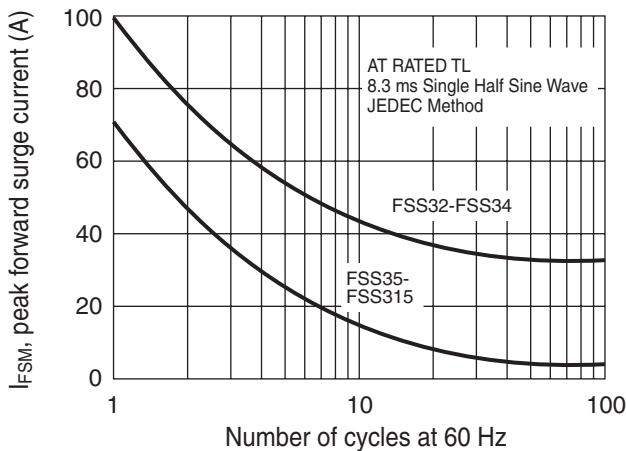
TYPICAL FORWARD CHARACTERISTIC



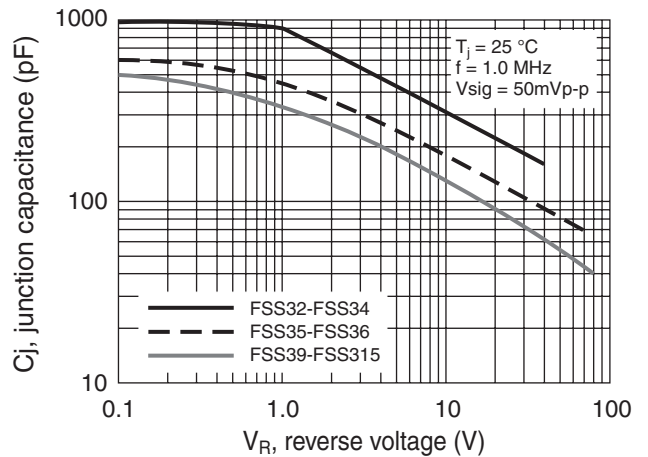
MAXIMUM FORWARD CURRENT DERATING CURVE



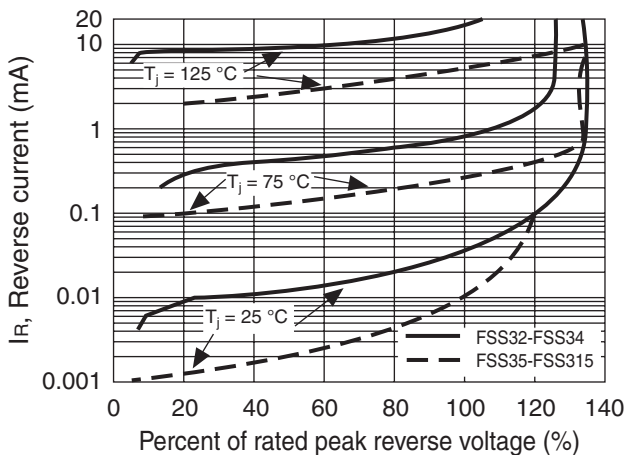
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



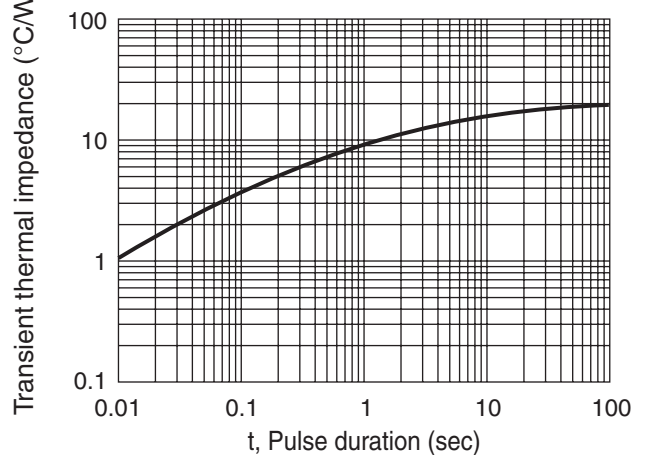
TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTIC



TYPICAL TRANSIENT THERMAL IMPEDANCE



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