





1.0 Amp. Surface Mount Schottky Barrier Rectifier

DO-214AA / SMB 	Voltage 20 V to 150V	Current 1.0 A	
	FEATURES <ul style="list-style-type: none"> • Low profile package • Ideal for automated placement • Guardring for overvoltage protection • Low power losses, high efficiency • Low forward voltage drop • High forward surge current capability • Solder dip 260°C, 10s • Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC • Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C • Low leakage current 		   RoHS COMPLIANT
	MECHANICAL DATA <ul style="list-style-type: none"> • Case: DO-214AA (SMB). 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.		

Maximun Ratings and Electrical Characteristics at 25°C

		FSS12SMB	FSS14SMB	FSS16SMB	FSS19SMB	FSS110SMB	FSS115SMB
Marking code		5B	5C	5A	5D	5E	5F
V _{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	20	40	60	90	100	150
V _{RMS}	Maximum RMS Voltage (V)	14	28	42	63	70	105
V _{DC}	Maximum DC Blocking Voltage (V)	20	40	60	90	100	150
I _{F(AV)}	Forward Current at T _c (See graphic)	1.0 A					
I _{FSM}	8.3 ms. Peak Forward Surge Current (Jedec Method)	30 A					
T _j	Operating Temperature Range	-55°C to +125°C		-55°C to +150°C			
T _{stg}	Storage Temperature Range	-55°C to +125°C					

Electrical Characteristics at Tamb = 25 °C

V _F	Maximum Instantaneous Forward Voltage	(Note 1)	0.5 V	0.75 V	0.85 V	0.95 V
	I _F = 1 A @ 25 °C		0.4 V	0.65 V	0.75 V	0.85 V
	I _F = 50mA @ 25 °C		-	0.40 V	-	
I _R	Maximum DC Reverse Current T _j = 25 °C at	0.5 mA		0.1 mA		
	Rated DC Blocking Voltage T _j = 100°C (Note 3)	10 mA	5.0 mA	-		
	T _j = 125°C	-		2.4 mA		
I _R	At 24V DC Reverse Current T _j = 75 °C at	0.05 mA		-		
	Rated DC Blocking Voltage Ta = 125 °C	-		4 mA		
C _j	Typical Junction Capacitance (Note 4)	110 pF				
R _{th(j-c)}	Typical Thermal Resistance (Note 2)	25 °C/W				

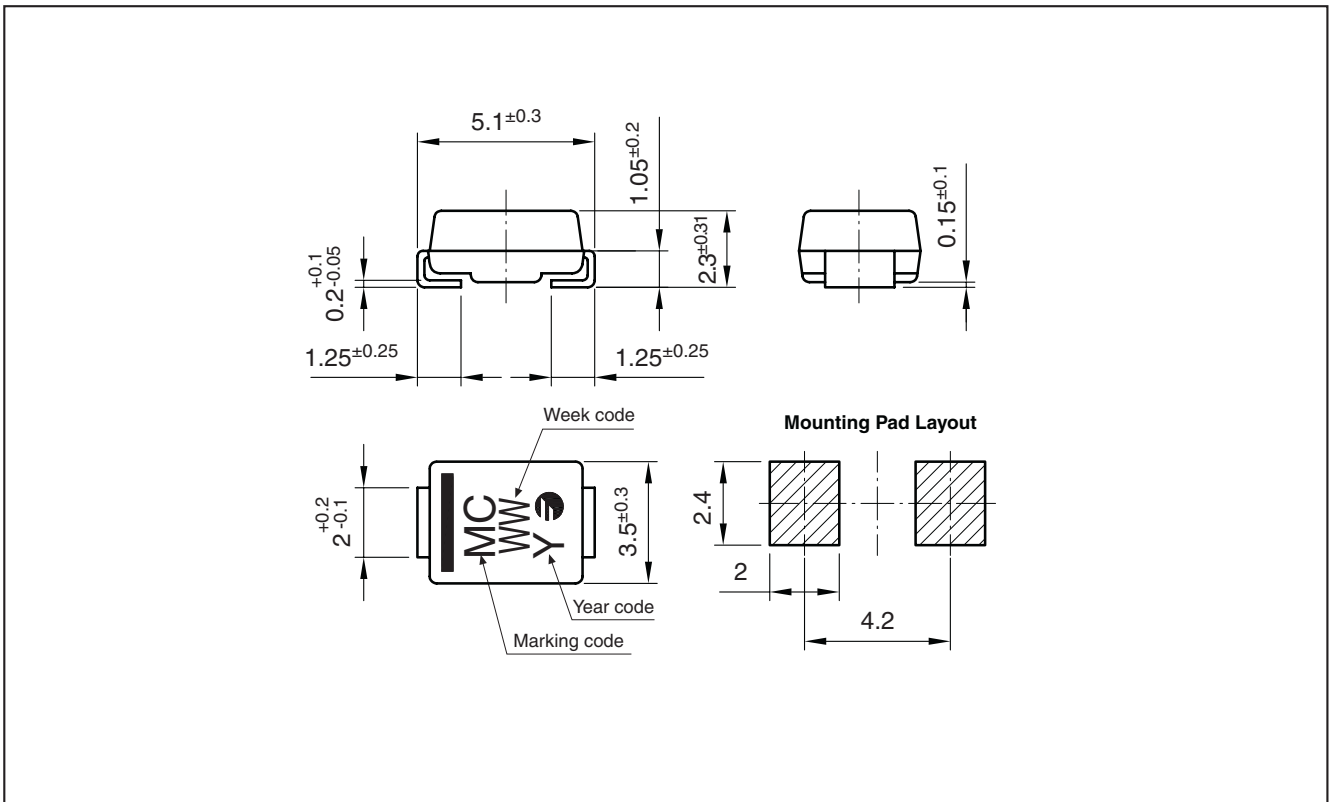
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle
 2. Thermal Resistance from Junction to Case per diode
 3. Pulse test: Pulse width ≤ 40ms
 4. Measured at 1.0MHz and Applies Reverse Voltage of 4.0V. D.C.

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Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FSS14SMB TRTB	TRTB	13" diameter tape and reel	3,000	0.082
FSS14SMB HE3 TRTB	TRTB	13" diameter tape and reel	3,000	0.082

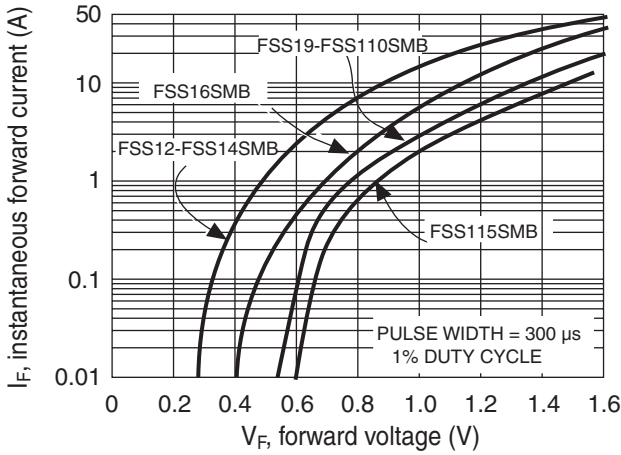
Package Outline Dimensions: (mm) DO-214AA / SMB



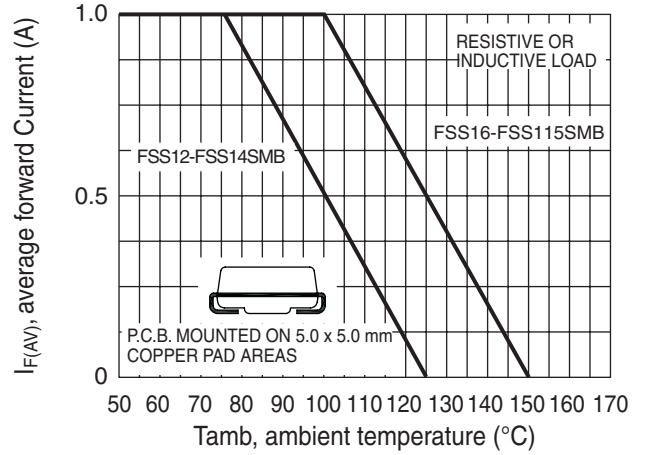
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

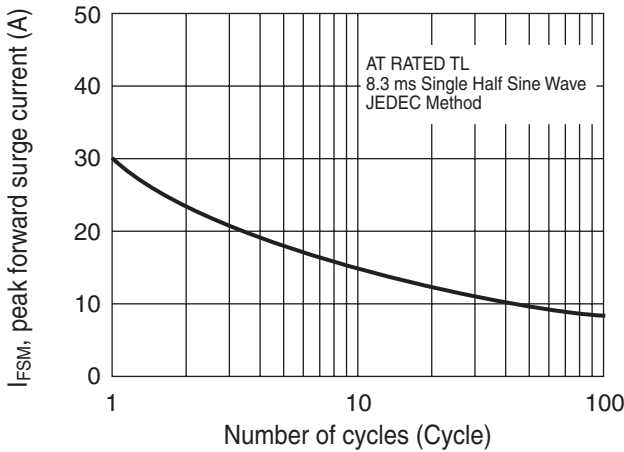
TYPICAL FORWARD CHARACTERISTIC



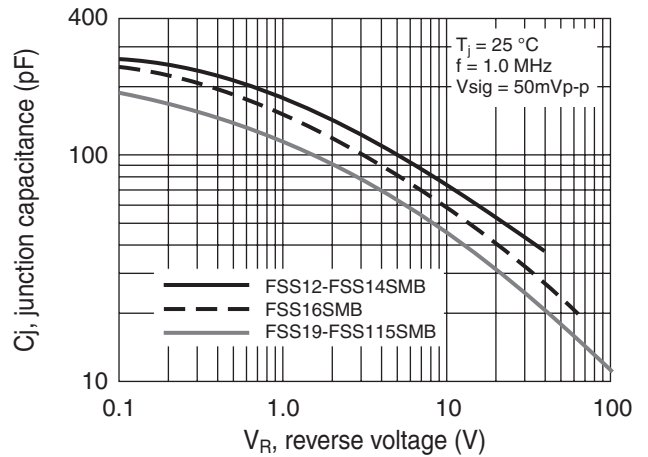
MAXIMUM FORWARD CURRENT DERATING CURVE



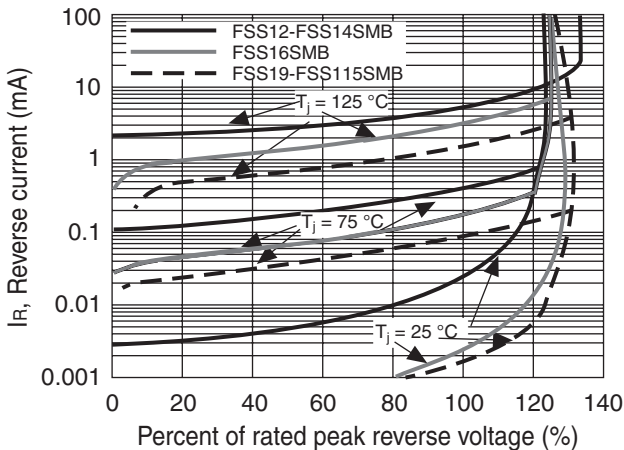
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



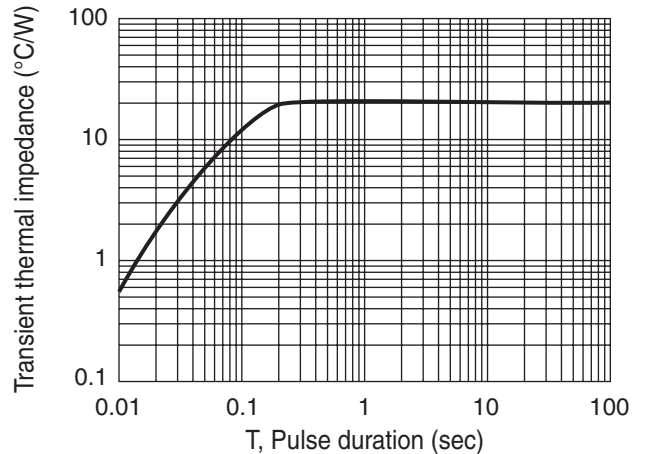
TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTIC



TYPICAL TRANSIENT THERMAL IMPEDANCE



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