





**1.0 Amp. Surface Mount Schottky Barrier Rectifier**

<b>DO-214AA / SMB</b>  	<b>Voltage</b> 20 V to 150V	<b>Current</b> 1.0 A	
	<b>FEATURES</b> <ul style="list-style-type: none"> <li>• Low profile package</li> <li>• Ideal for automated placement</li> <li>• Guardring for overvoltage protection</li> <li>• Low power losses, high efficiency</li> <li>• Low forward voltage drop</li> <li>• High forward surge current capability</li> <li>• Solder dip 260°C, 10s</li> <li>• Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC</li> <li>• Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C</li> <li>• Low leakage current</li> </ul>		   <b>RoHS COMPLIANT</b>
	<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li>• <b>Case:</b> DO-214AA (SMB). Epoxy meets UL 94V-0 flammability rating.</li> <li>• <b>Polarity:</b> Color band denotes cathode end.</li> <li>• <b>Terminals:</b> 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.</li> </ul>		
	<b>TYPICAL APPLICATIONS</b> 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		<b>5B</b>	<b>5C</b>	<b>5A</b>	<b>5D</b>	<b>5E</b>	<b>5F</b>
V <sub>RRM</sub>	Maximum Recurrent Peak Reverse Voltage (V)	20	40	60	90	100	150
V <sub>RMS</sub>	Maximum RMS Voltage (V)	14	28	42	63	70	105
V <sub>DC</sub>	Maximum DC Blocking Voltage (V)	20	40	60	90	100	150
I <sub>F(AV)</sub>	Forward Current at T <sub>c</sub> (See graphic)	1.0 A					
I <sub>FSM</sub>	8.3 ms. Peak Forward Surge Current (Jedec Method)	30 A					
T <sub>j</sub>	Operating Temperature Range	-55°C to +125°C		-55°C to +150°C			
T <sub>stg</sub>	Storage Temperature Range	-55°C to +125°C					

**Electrical Characteristics at Tamb = 25 °C**

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

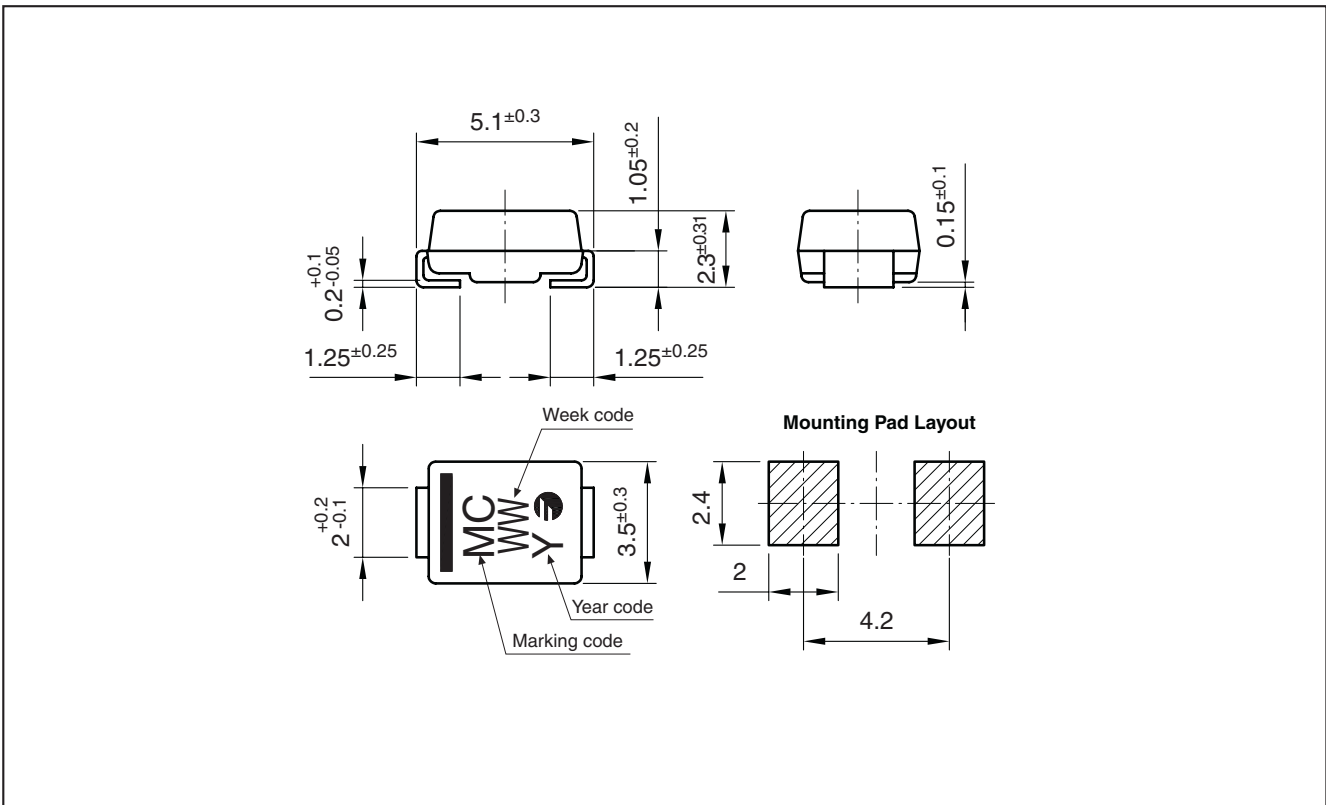
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle  
 2. Thermal Resistance from Junction to Case per diode  
 3. Pulse test: Pulse width ≤ 40ms  
 4. Measured at 1.0MHz and Applies Reverse Voltage of 4.0V. D.C.

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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

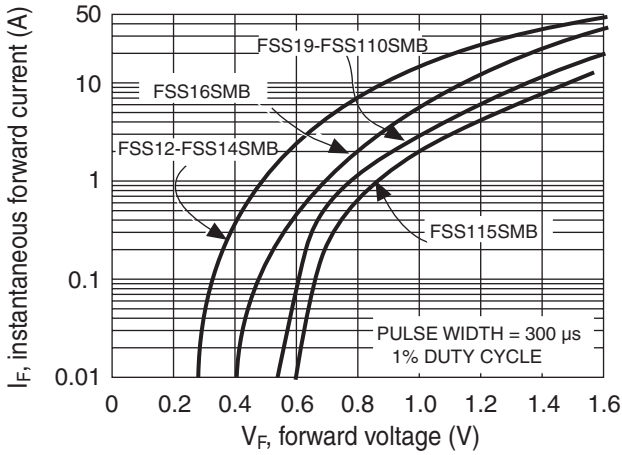
**Package Outline Dimensions: (mm) DO-214AA / SMB**



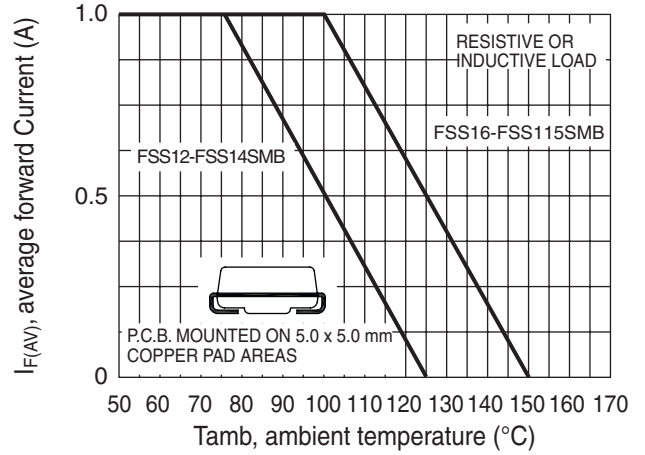
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

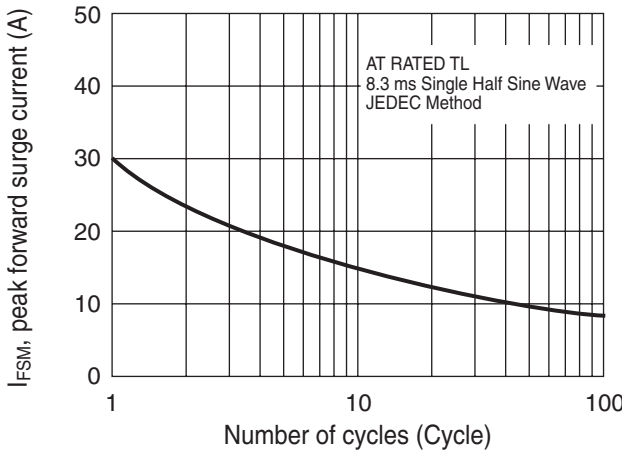
TYPICAL FORWARD CHARACTERISTIC



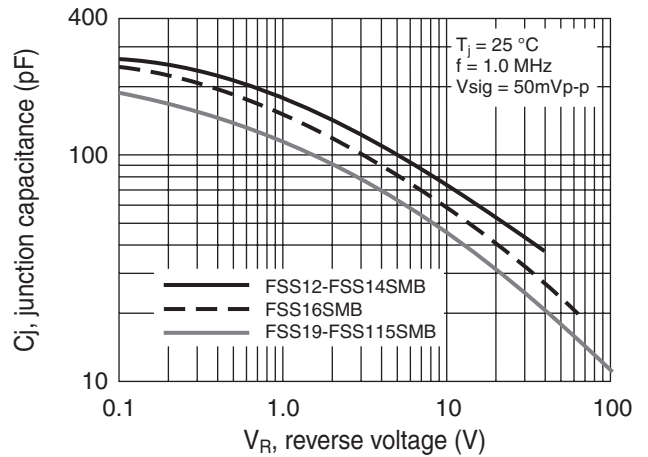
MAXIMUM FORWARD CURRENT DERATING CURVE



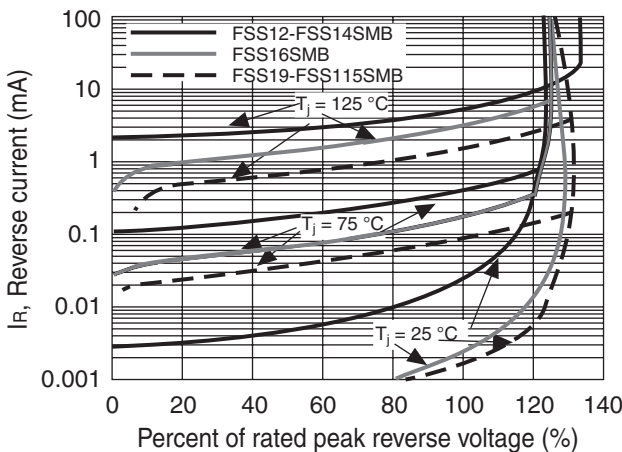
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



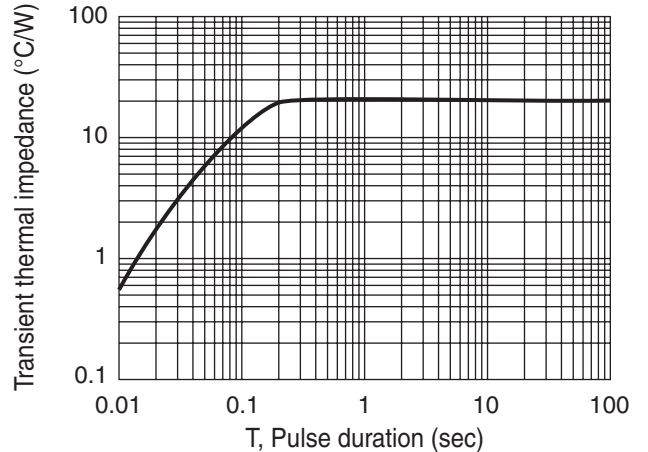
TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTIC



TYPICAL TRANSIENT THERMAL IMPEDANCE



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