

1.0 Amp. Surface Mount Schottky Barrier Rectifier

<p>DO-214AC (SMA)</p> 	<p>Voltage 20 V to 200V</p>	<p>Current 1.0 A</p>	
	<p>FEATURES</p> <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 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 Low leakage current 		   RoHS COMPLIANT
	<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> Case: DO-214AC (SMA). 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. 		
	<p>TYPICAL APPLICATIONS</p> <p>Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.</p>		

Maximun Ratings and Electrical Characteristics at 25°C

		FSS12	FSS13	FSS14	FSS15	FSS16	FSS19	FSS110	FSS115	FSS120
Marking code		A1	A2	A3	A4	A6	A7	A8	A9	9A
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	20	30	40	50	60	90	100	150	200
V_{RMS}	Maximum RMS Voltage (V)	14	21	28	35	42	63	70	105	140
V_{DC}	Maximum DC Blocking Voltage (V)	20	30	40	50	60	90	100	150	200
$I_{F(AV)}$	Forward Current at Tc (See graphic)	1.0 A								
I_{FSM}	8.3 ms. Peak Forward Surge Current (Jedec Method)	30 A								
T_j	Operating Temperature Range	-65°C to +125°C				-65°C to +150°C				
T_{stg}	Storage Temperature Range	-65°C to +150°C								

Electrical Characteristics at Tamb = 25 °C

V_F	Maximum Instantaneous Forward Voltage $I_F = 1\text{ A}$ @ 25 °C (Note 1) @ 100 °C	0.5 V 0.4 V	0.75 V 0.65 V	0.80 V 0.70 V	0.95 V 0.85 V
I_R	Maximum DC Reverse Current $T_j = 25\text{ °C}$ at Rated DC Blocking Voltage $T_j = 125\text{ °C}$ (Note 3)	0.2 mA		0.1 mA	
C_j	Typical Junction Capacitance	110 pF	90 pF	70 pF	
$R_{th(j-c)}$ $R_{th(j-a)}$	Typical Thermal Resistance (Note 2)	28 °C/W 88 °C/W			

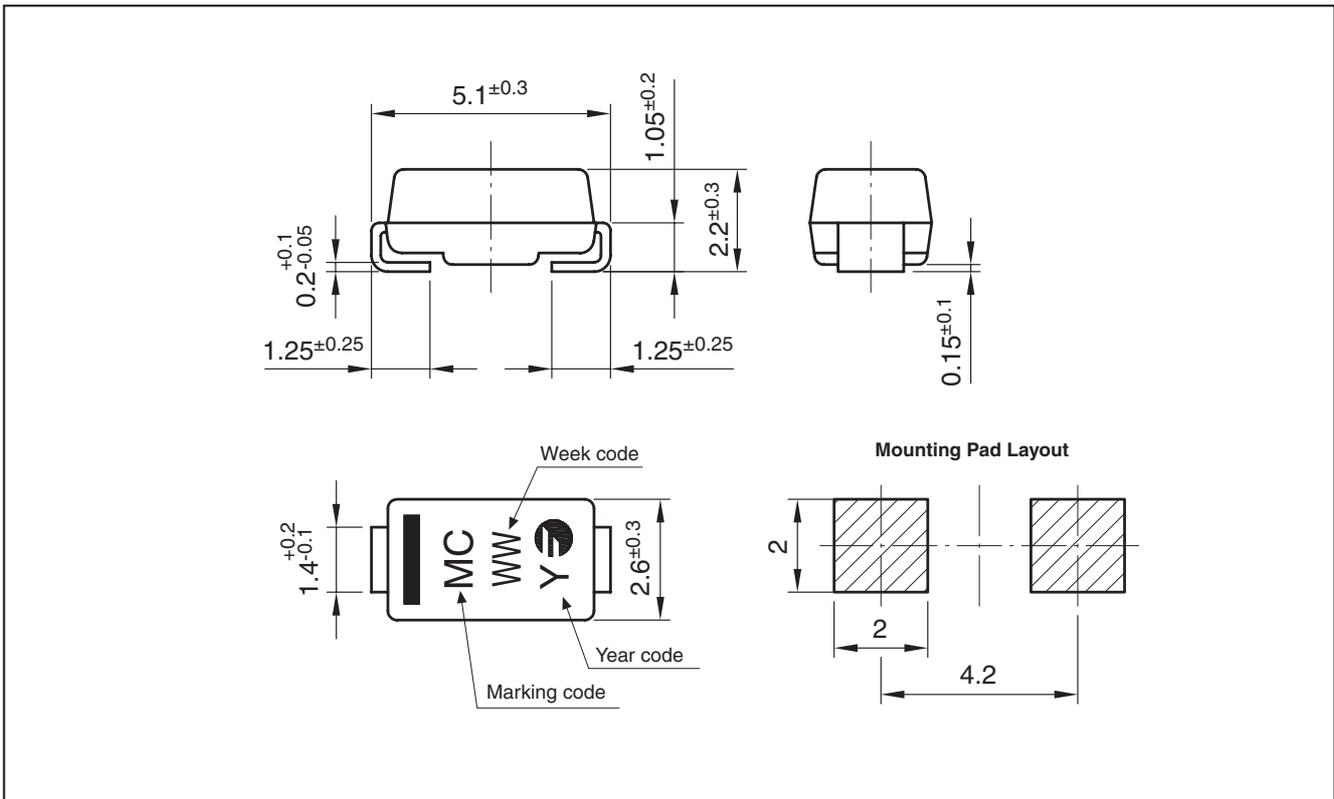
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle
 2. Thermal Resistance from Junction to Case per diode
 3. Pulse test: Pulse width ≤ 40ms

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Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FSS14 TRTB	TRTB	13" diameter tape and reel	7,500	0.060
FSS14 TRTS	TRTS	7" diameter tape and reel	1,800	0.060
FSS14 HE3 TRTB	TRTB	13" diameter tape and reel	7,500	0.060
FSS14 HE3 TRTS	TRTS	7" diameter tape and reel	1,800	0.060

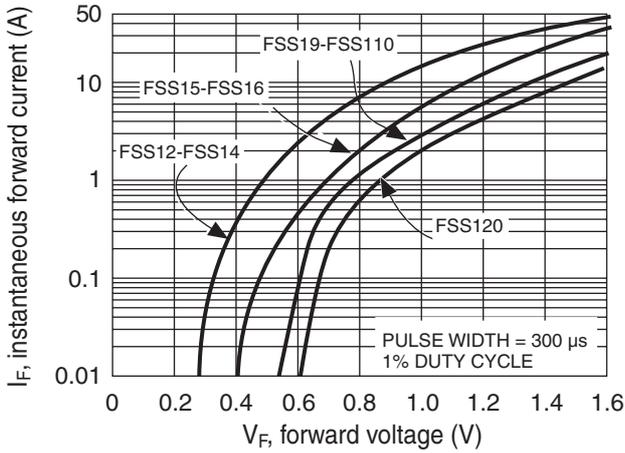
Package Outline Dimensions: (mm) DO-214AC (SMA)



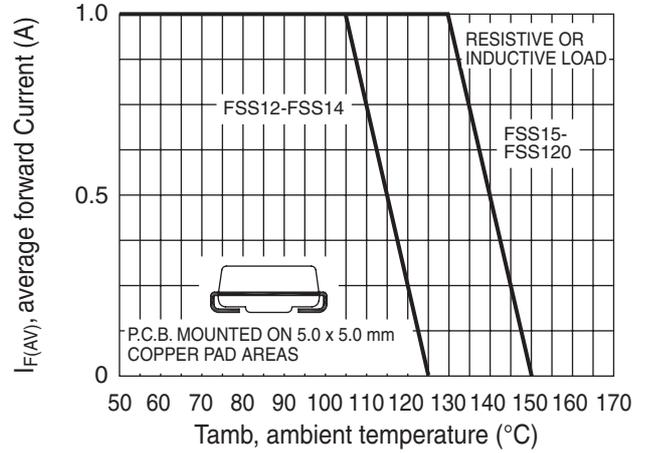
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

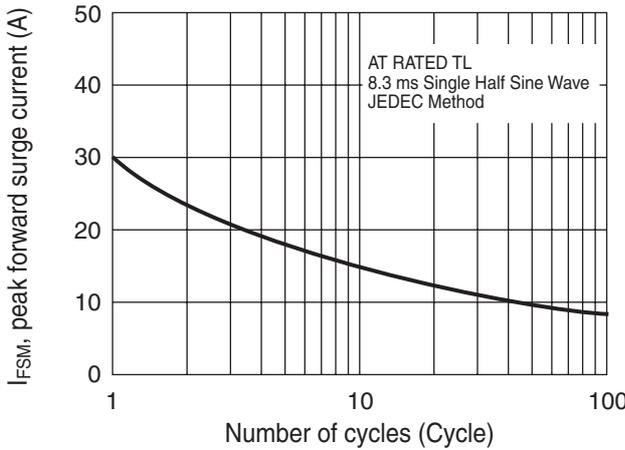
TYPICAL FORWARD CHARACTERISTIC



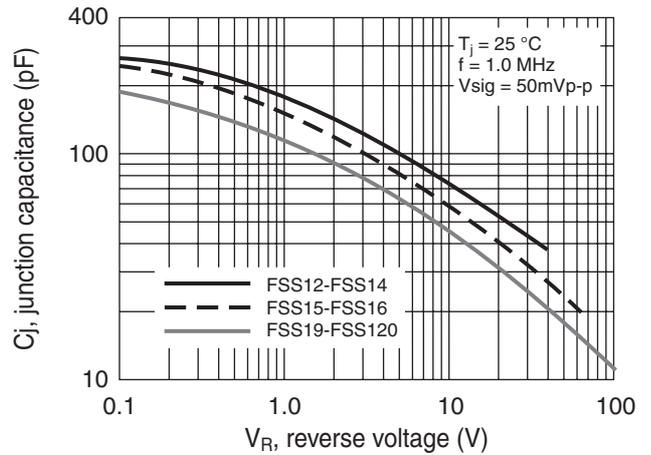
MAXIMUM FORWARD CURRENT DERATING CURVE



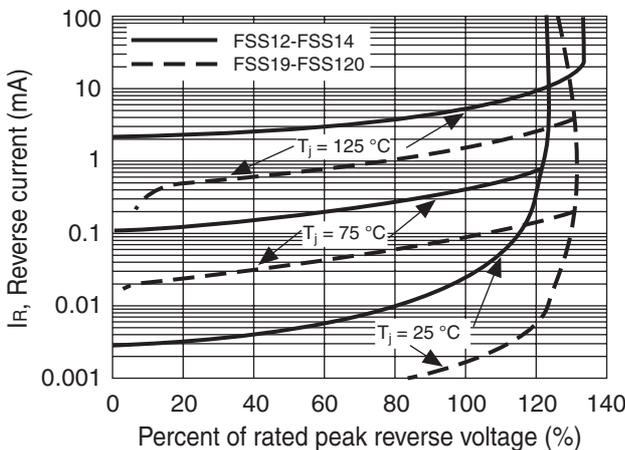
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



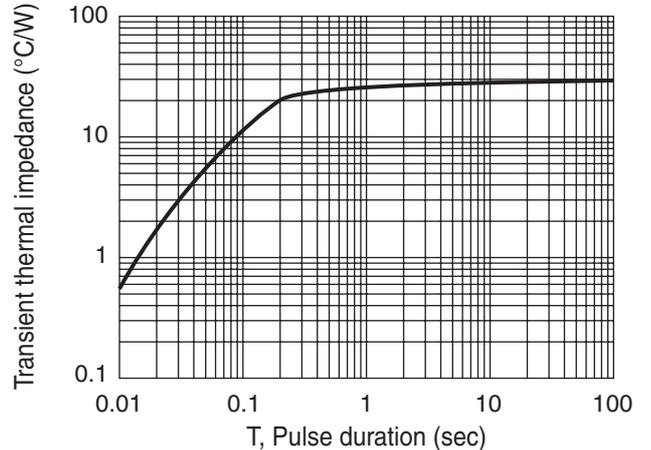
TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTIC



TYPICAL TRANSIENT THERMAL IMPEDANCE



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Revision History

Date	Revision	Description of Changes
14-Oct-2011	0	Original Data Sheet
28-Feb-2013	1	200V Reference included
15-June-2017	2	Change Marking code for FSS16 to A6

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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