






1.0 Amp. Surface Mount Glass Passivated Rectifier

DO-214AC (SMA) 	Voltage 400 V to 1200 V	Current 1.0 A	
			
	FEATURES <ul style="list-style-type: none"> • Low profile package • Ideal for automated placement • 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
	MECHANICAL DATA <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. 		
TYPICAL APPLICATIONS Used in general purpose rectification of power supplies, inverters, converters and freewheeling diodes for consumer, automotive and telecommunication.			

Maximun Ratings and Electrical Characteristics at 25°C

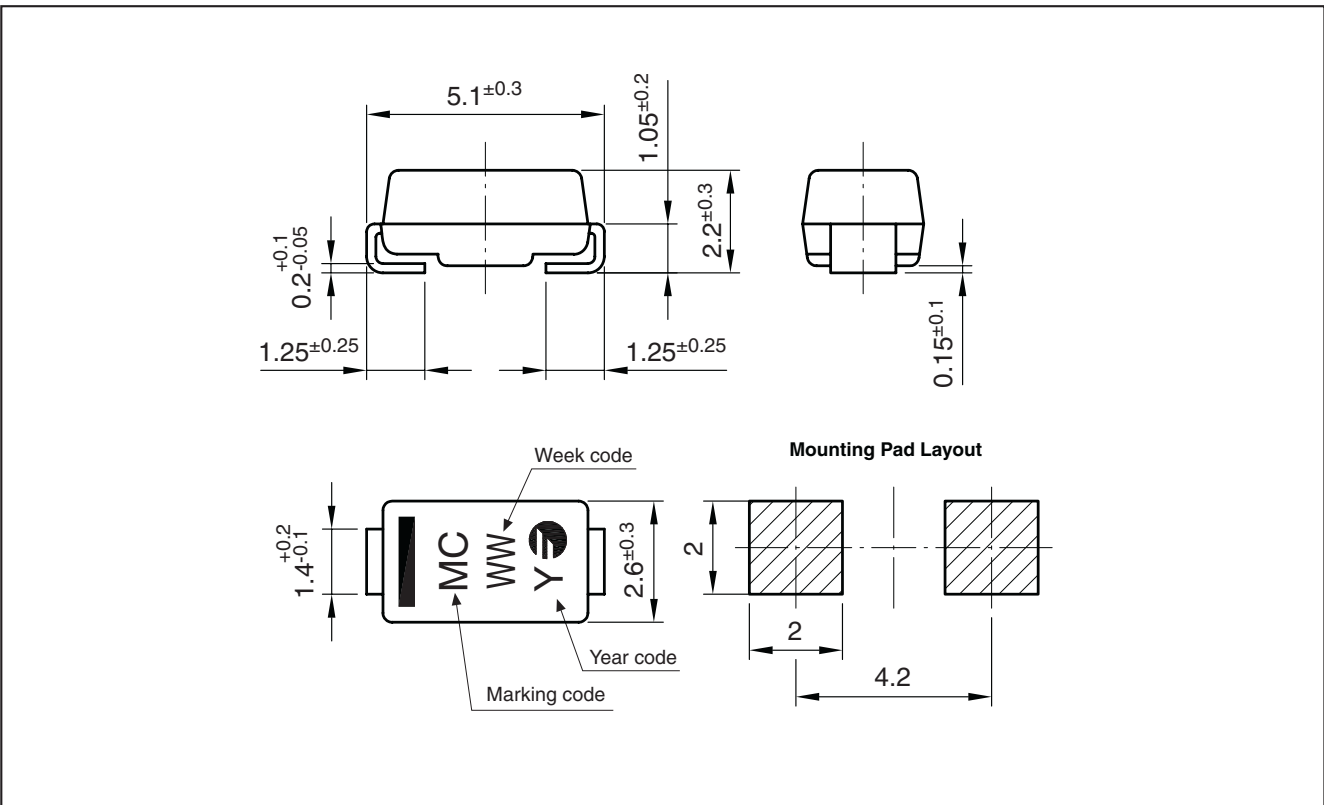
		FS1G	FS1J	FS1K	FS1M	FS1Q
Marking Code		R4	R5	R6	R7	R9
V _{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	400	600	800	1000	1200
V _{RMS}	Maximum RMS Voltage (V)	280	420	560	700	840
V _{DC}	Maximum DC Blocking Voltage (V)	400	600	800	1000	1200
I _{F(AV)}	Forward current at T _L = 110 °C	1.0 A				
I _{FSM}	8.3 ms. peak forward surge current (Jedec Method)	30 A				
V _F	Maximum Instantaneous Forward Voltage at 1.0A	1.1 V				
I _R	Maximum DC Reverse Current at Rated DC Blocking Voltage			Ta = 25 °C Ta = 100 °C		
T _{rr}	Typical Reverse Recovery Time (0.5/1/0.25A)	1.8 μs				
C _j	Typical Junction Capacitance (1MHz; -4V)	12 pF				
R _{th(j-c)}	Typical Thermal Resistance	27 °C/W				
R _{th(j-a)}	(5x5 mm ² x 130 μ Copper Area)	75 °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)
FS1J TRTB	TRTB	13" diameter tape and reel	7,500	0.060
FS1J TRTS	TRTS	7" diameter tape and reel	1,500	0.060
FS1G HE3 TRTB	TRTB	13" diameter tape and reel	7,500	0.060
FS1G HE3 TRTS	TRTS	7" diameter tape and reel	1,500	0.060

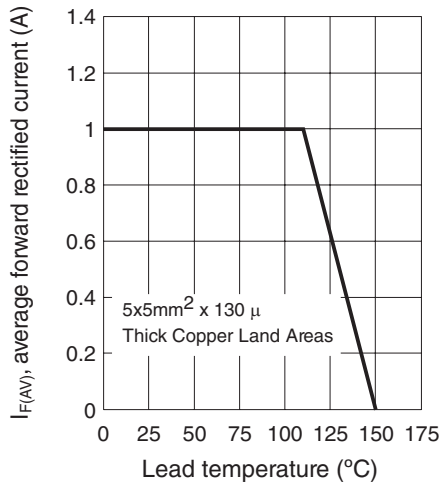
Package Outline Dimensions: (mm) DO-214AC (SMA)



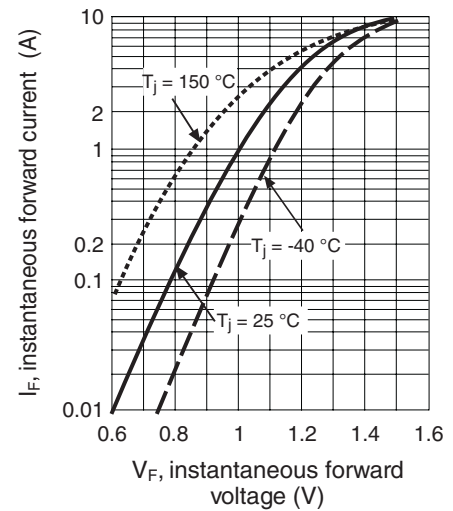
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

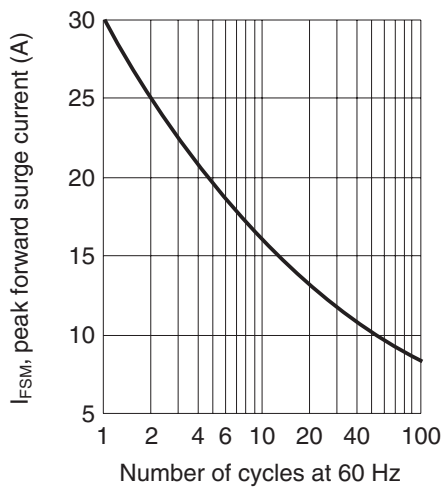
FORWARD CURRENT DERATING CURVE



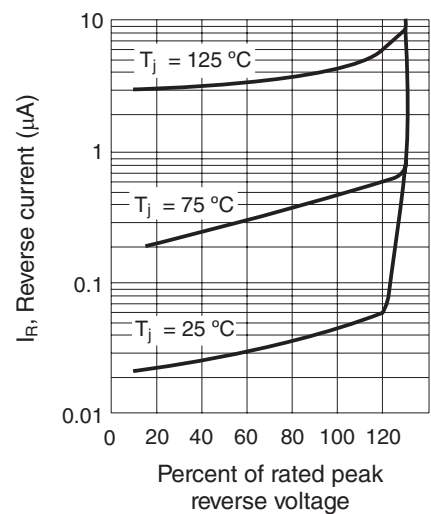
TYPICAL FORWARD CHARACTERISTIC



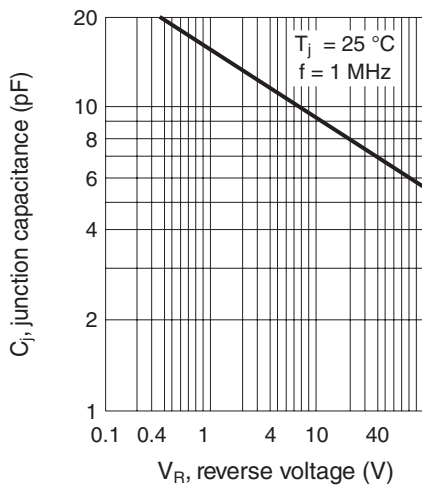
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



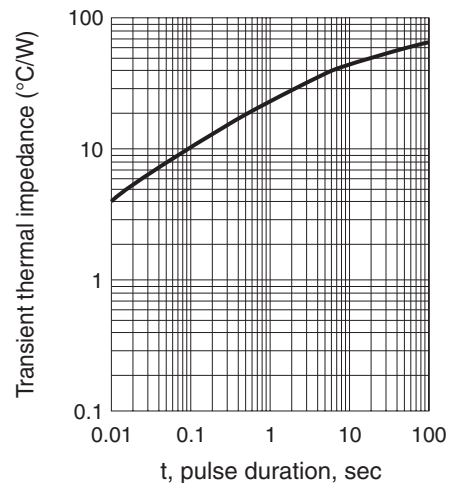
TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE

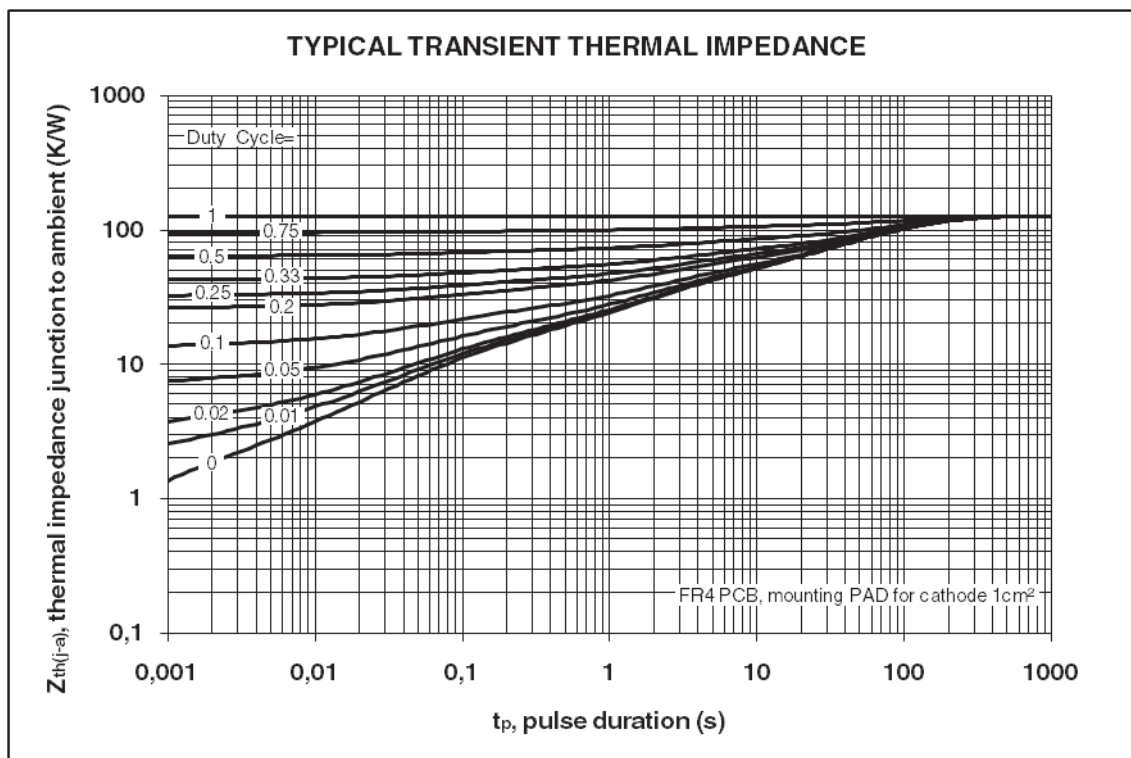
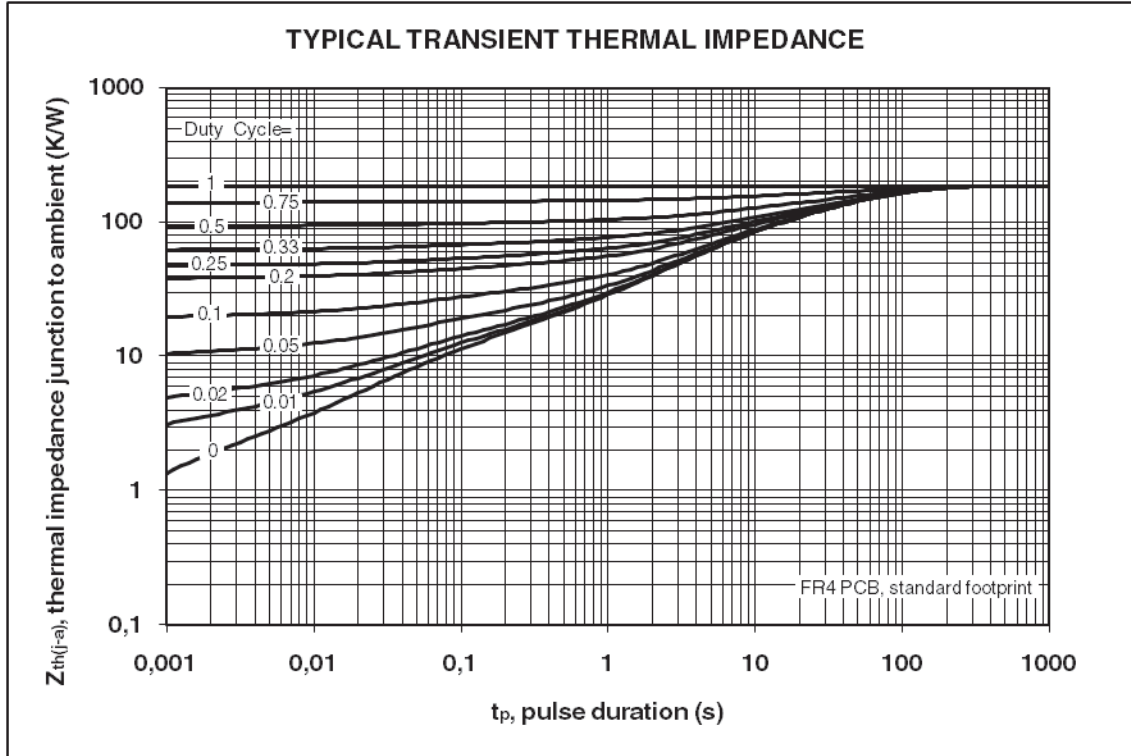


TYPICAL TRANSIENT THERMAL IMPEDANCE



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Revision History

Date	Revision	Description of Changes
11-Jul-2011	0	Original Data Sheet
13-Jul-2015	1	$I_{F(VF)}$ Graph Revised
10-May-2016	2	Transient Thermal Impedance Graphs 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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