

1.0 Amp. Surface Mount Glass Passivated Rectifier

<p>SOD123W</p> 	<p>Voltage 400 V to 1000 V</p>	<p>Current 1.0 A</p>	
	<p>FEATURES</p> <ul style="list-style-type: none"> • Glass pasivated Technology • Low profile package • Ideal for automated placement • Low power losses, high efficiency • High surge current capability • Cavity-free glass-passivated junction • 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
	<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: SOD123W. 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 general purpose rectification of power supplies, inverters, converters and freewheeling diodes application.</p>		

Maximum Ratings and Electrical Characteristics at 25 °C

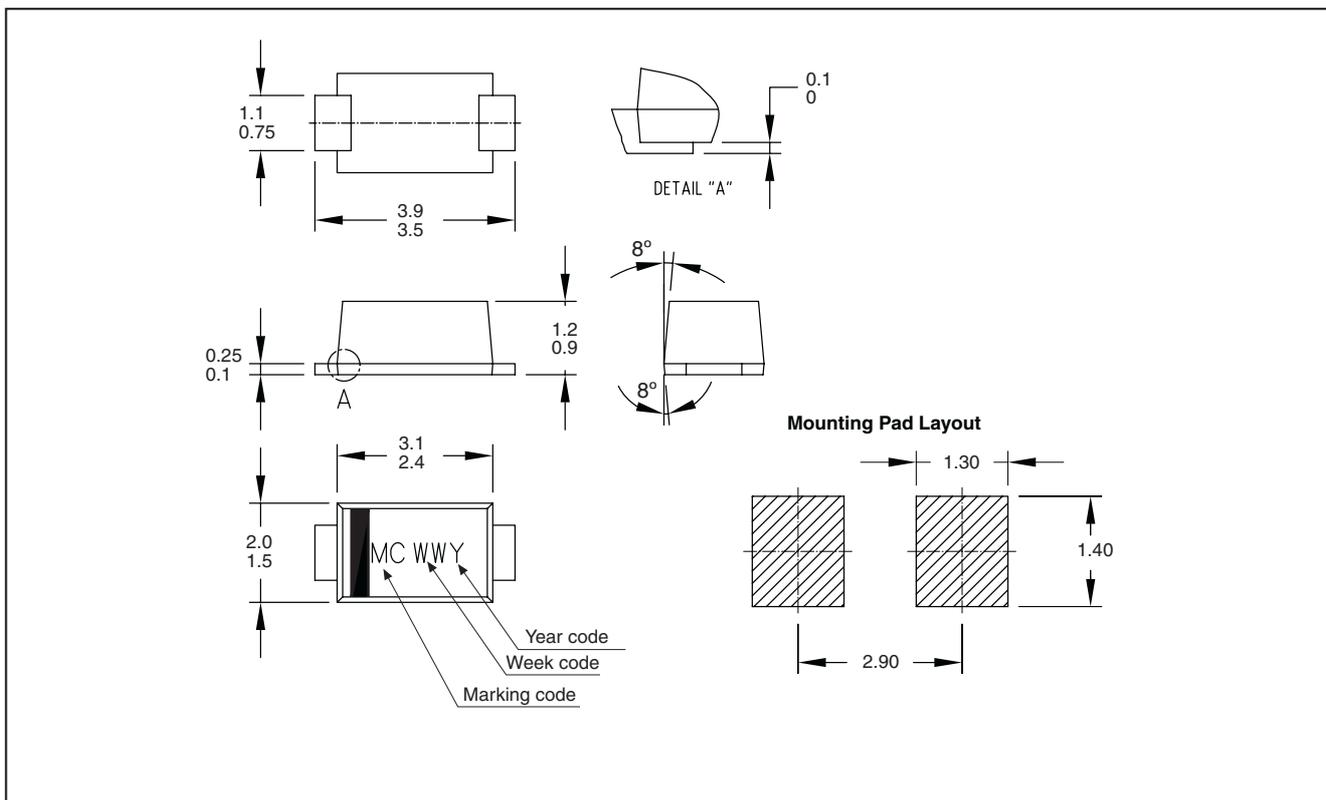
Marking Code		FS1GW	FS1JW	FS1KW	FS1MW
		DB	DC	1V	1Z
V _{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	400	600	800	1000
V _{RMS}	Maximum RMS Voltage (V)	280	420	560	700
V _{DC}	Maximum DC Blocking Voltage (V)	400	600	800	1000
I _{F(AV)}	Maximum Average Forward Rectified Current @ T _C = 110 °C @ T _C = 75 °C 20ms Square pulse	1.0 A 1.5 A			
I _{FSM}	Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	30 A			
V _F	Maximum Instantaneous Forward Voltage @ 1.0A	1.1 V			
I _R	Maximum DC Reverse Current @T _c = 25 °C at Rated DC Blocking Voltage @T _c = 125 °C	1 µA 50 µA			
T _{rr}	Typical Reverse Recovery Time (0.5/1/0.25A)	1.8 µs			
C _j	Typical Junction Capacitance (1MHz; -4V)	9 pF			
R _{th(j-c)}	Maximum Thermal Resistance	25 °C/W			
R _{th(j-a)}	(5x5 mm ² x 130 µ Copper Area)	85 °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)
FS1JW TRTB	TRTB	13" diameter tape and reel	10,000	0.0165
FS1JW HE3 TRTB	TRTB	13" diameter tape and reel	10,000	0.0165

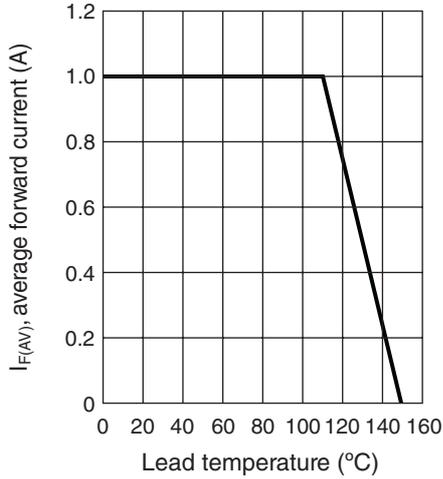
Package Outline Dimensions: (mm) SOD123W



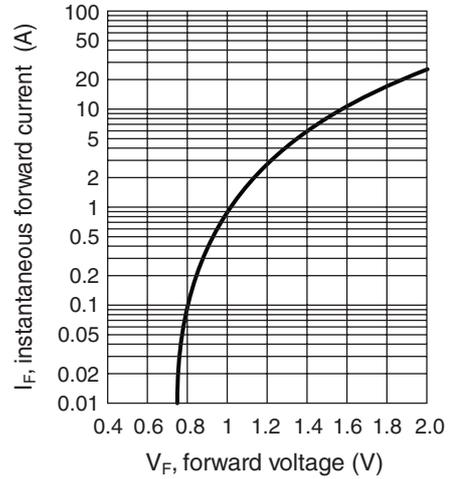
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

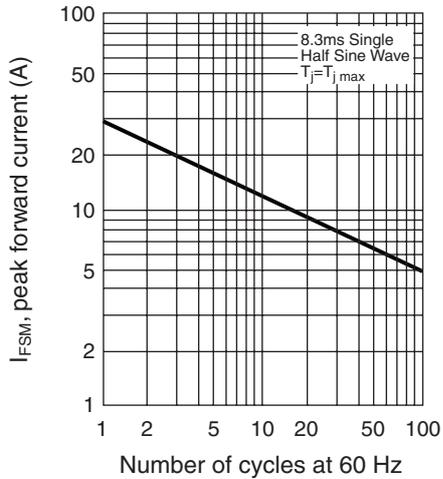
MAXIMUM FORWARD CURRENT DERATING CURVE



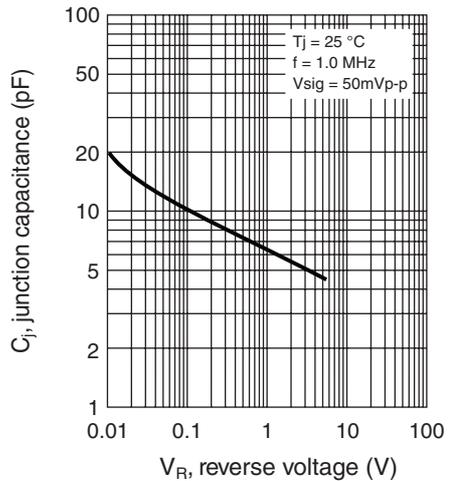
TYPICAL FORWARD CHARACTERISTICS



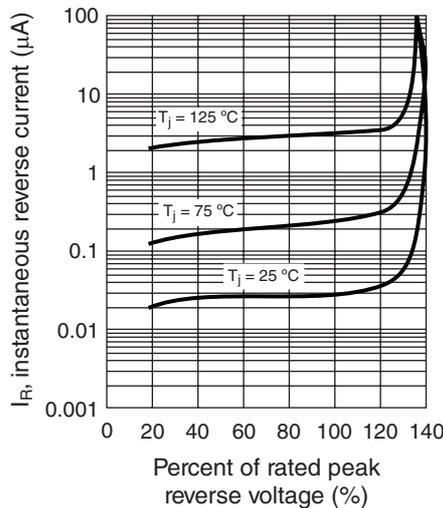
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTICS



1.0 Amp. Surface Mount Glass Passivated Rectifier**Revision History**

Date	Revision	Description of Changes
14-Feb-2013	0	Original Data Sheet
3-Jun-2013	1	800V and 1000V included
18-Sep-2015	2	Delete suffix TG from the component name
25-Feb-2016	3	Update package outline

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