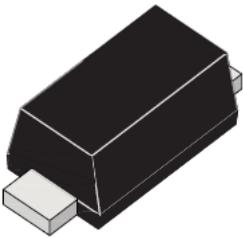


0.8 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier

SOD123W 	Voltage 200 V to 1000 V	Current 0.8 A	
	FEATURES <ul style="list-style-type: none"> • Low profile package • Ideal for automated placement • Low power losses, high efficiency • High surge current capability • Low forward voltage drop • Cavity-free glass-passivated junction • Solder dip 260 °C, 10s • Fast switching for high efficiency • 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
	MECHANICAL DATA <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. 		
	TYPICAL APPLICATIONS For use in fast switching rectification of power supply, inverters, converters and freewheeling diodes for consumer and telecommunication.		

Maximum Ratings and Electrical Characteristics at 25 °C

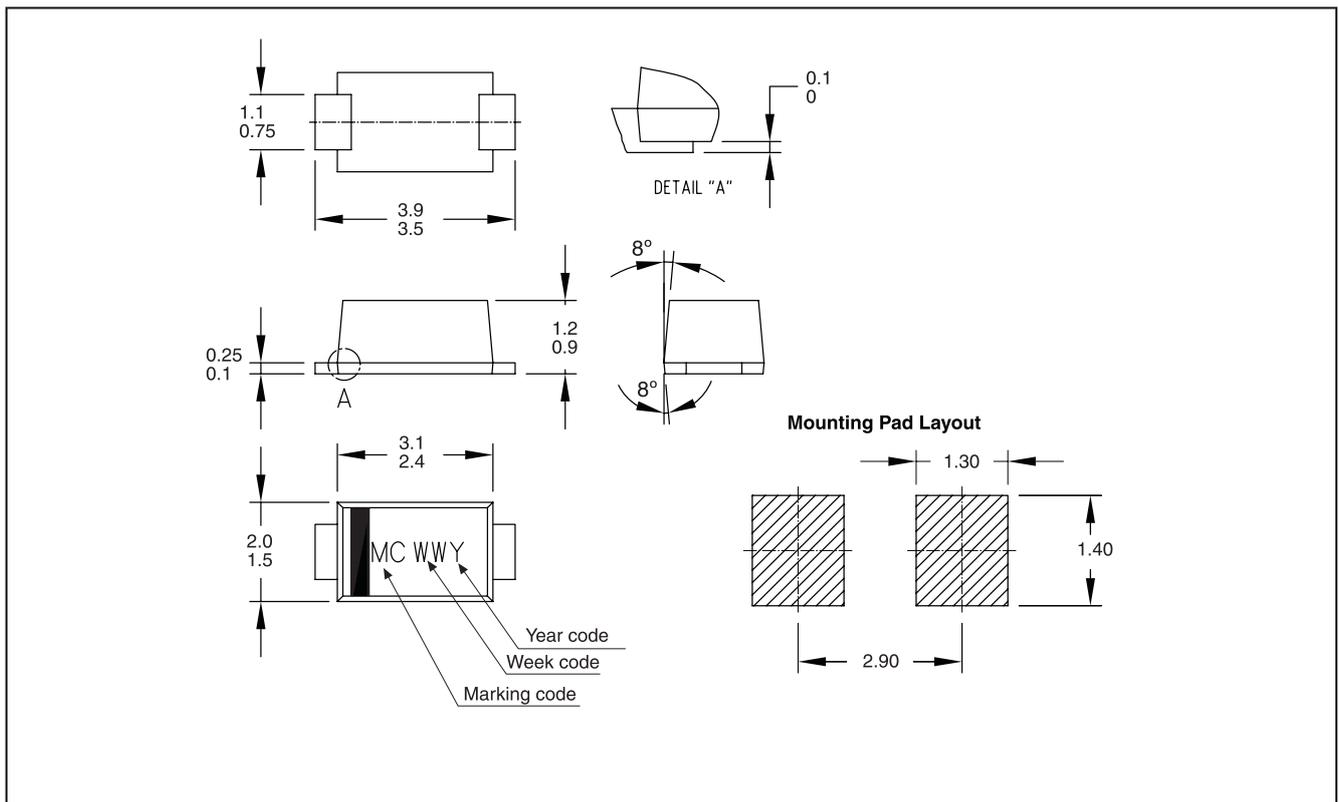
Marking Code		FRS1DW	FRS1GW	FRS1JW	FRS1KW	FRS1MW
		3J	3K	3L	3M	3N
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	200	400	600	800	1000
V_{RMS}	Maximum RMS Voltage (V)	140	280	420	560	700
V_{DC}	Maximum DC Blocking Voltage (V)	200	400	600	800	1000
$I_{F(AV)}$	Forward current at $T_L = 55\text{ °C}$	0.8 A				
I_{FSM}	8,3 ms. peak forward surge current (Jedec Method)	30 A				
V_F	Maximum Instantaneous Forward Voltage at 0.8 A	1.3 V				
I_R	Maximum DC Reverse Current $T_j = 25\text{ °C}$	5 μ A				
	at Rated DC Blocking Voltage $T_j = 125\text{ °C}$	50 μ A				
T_{rr}	Maximum Reverse Recovery Time (0,5/1/0,25A)	150 ns		250 ns		500 ns
C_j	Typical Junction Capacitance (1MHz; -4V)	8 pF				
$R_{th(j-l)}$	Typical Thermal Resistance	27 °C/W				
$R_{th(j-a)}$	(5x5 mm ² x 130 μ m Cooper Area)	75 °C/W				
$T_j - T_{stg}$	Operating Junction and Storage Temperature Range	- 55 to 150 °C				

0.8 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier

Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FRS1GW TRTB	TRTB	13" diameter tape and reel	10,000	0.0165
FRS1JW HE3 TRTB	TRTB	13" diameter tape and reel	10,000	0.0165

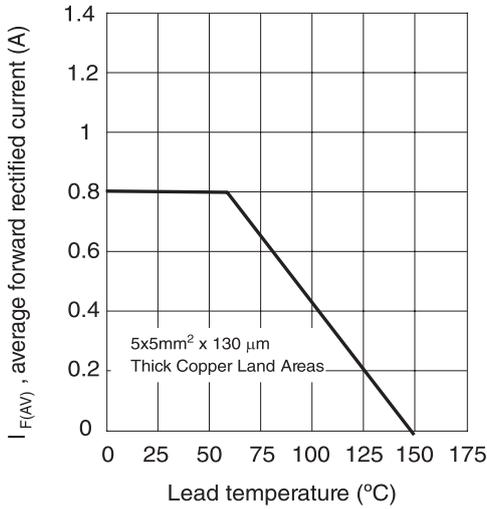
Package Outline Dimensions: (mm) SOD123W



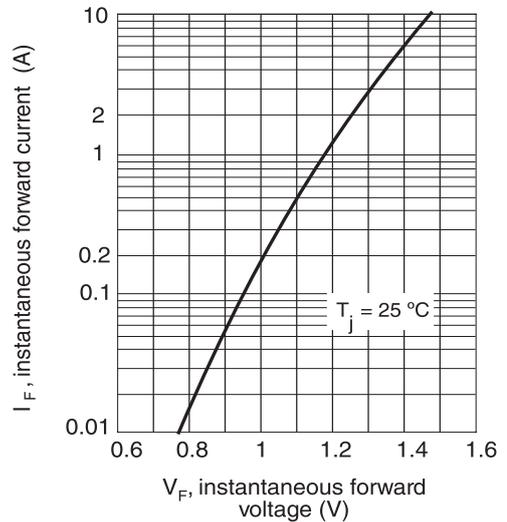
0.8 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier

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

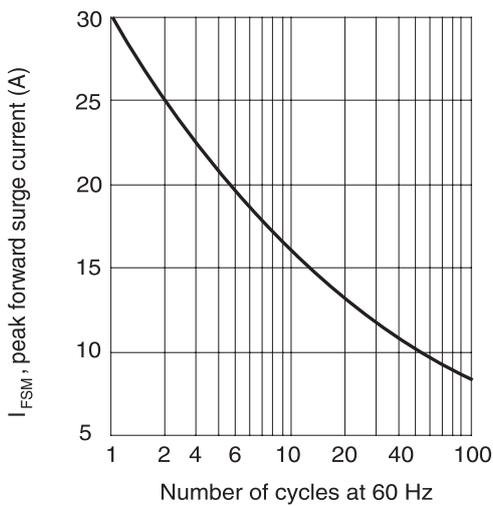
FORWARD CURRENT DERATING CURVE



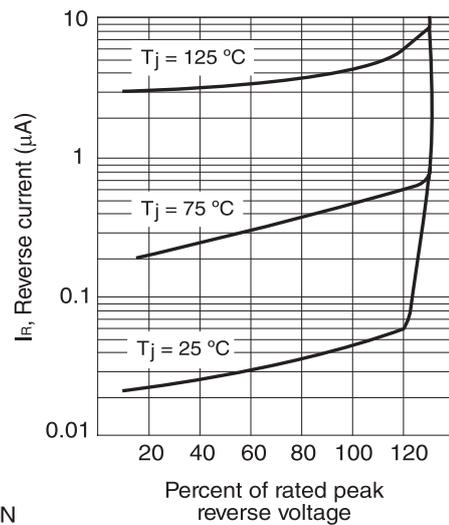
TYPICAL FORWARD CHARACTERISTIC



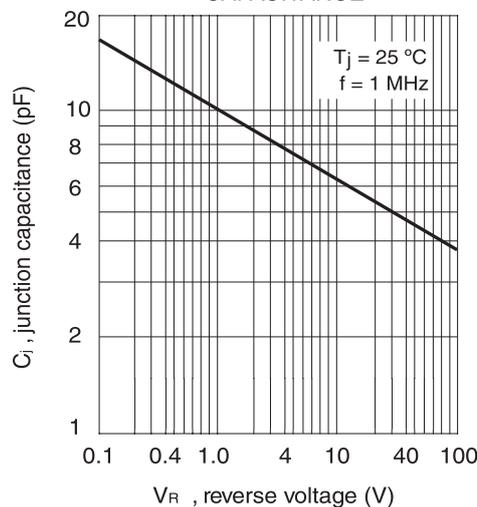
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE



0.8 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier**Revision History**

DATE	REVISION	DESCRIPTION OF CHANGES
18-Apr-2013	0	Original Data Sheet
15-Mar-2017	1	HE3 Version included
10-Jan-2020	2	Update package outline

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