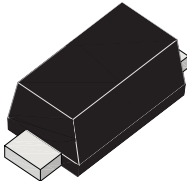





### 1.0 Amp. Surface Mount Top Glass Passivated Rectifier

<p><b>SOD123W</b></p> 	<p><b>Voltage</b> 400 V to 600 V</p>	<p><b>Current</b> 1.0 A</p>	
	<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>• Top-Glass Technology</li> <li>• Low profile package</li> <li>• Ideal for automated placement</li> <li>• Low power losses, high efficiency</li> <li>• High surge current capability</li> <li>• Cavity-free glass-passivated junction</li> <li>• Low forward voltage drop</li> <li>• Solder dip 260°C, 10s</li> <li>• AEC-Q101 qualified</li> <li>• Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC</li> <li>• Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C</li> </ul>		   <b>RoHS COMPLIANT</b>
	<p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>• <b>Case:</b> SOD123W. 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.</li> <li>• <b>HE3 suffix</b> for high reliability grade, meets JESD 201 class 2 whisker test.</li> </ul>		
	<p><b>TYPICAL APPLICATIONS</b></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

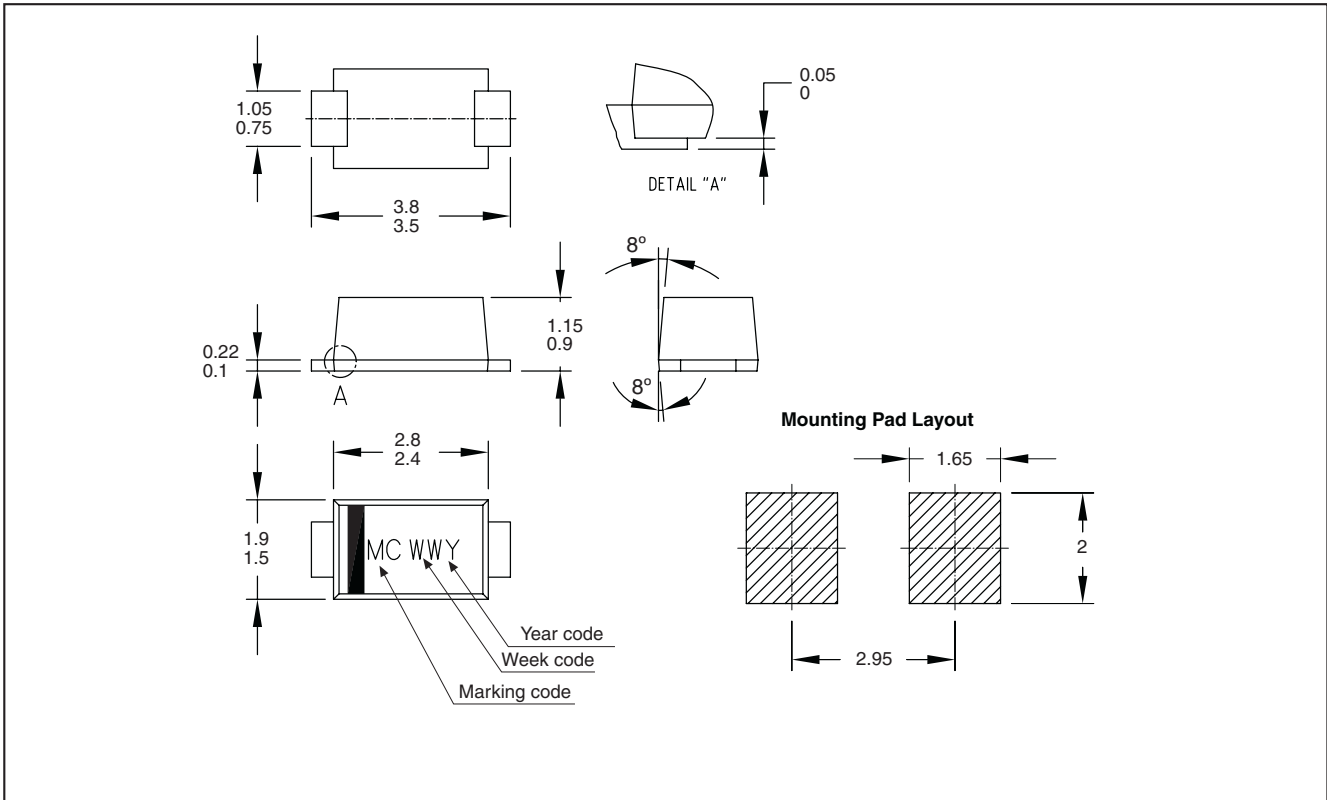
		M1F40W TG	M1F60W TG
Marking Code		1S	1T
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage (V)	400	600
$V_{RMS}$	Maximum RMS Voltage (V)	280	420
$V_{DC}$	Maximum DC Blocking Voltage (V)	400	600
$I_{F(AV)}$	Maximum Average Forward Rectified Current @ $T_C = 110\text{ °C}$ @ $T_C = 75\text{ °C}$ 20ms Square 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)	25 A	
$V_F$	Maximum Instantaneous Forward Voltage @ 1.0A	1.1 V	
$I_R$	Maximum DC Reverse Current @ $T_c = 25\text{ °C}$ at Rated DC Blocking Voltage @ $T_c = 125\text{ °C}$	1 $\mu$ A 50 $\mu$ A	
$T_{rr}$	Typical Reverse Recovery Time (0.5/1/0.25A)	1.8 $\mu$ s	
$C_j$	Typical Junction Capacitance (1MHz; -4V)	9 pF	
$R_{th(j-c)}$	Maximum Thermal Resistance	25 °C/W	
$R_{th(j-a)}$	(5x5 mm <sup>2</sup> x 130 $\mu$ Copper Area)	85 °C/W	
$T_j - T_{stg}$	Operating Junction and Storage Temperature Range	-55 to + 150 °C	

### 1.0 Amp. Surface Mount Top Glass Passivated Rectifier

#### Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
M1F40W TG TRTB	TRTB	13" diameter tape and reel	10,000	0.0165
M1F40W TG HE3 TRTB	TRTB	13" diameter tape and reel	10,000	0.0165

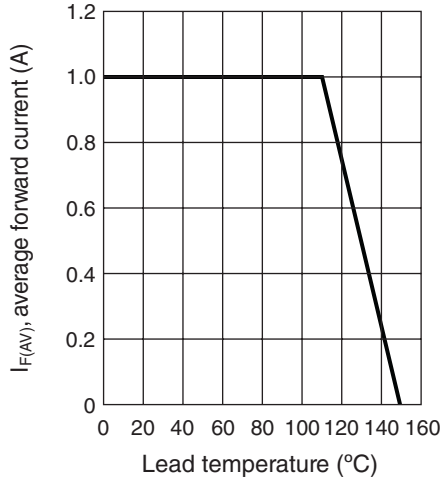
#### Package Outline Dimensions: (mm) SOD123W



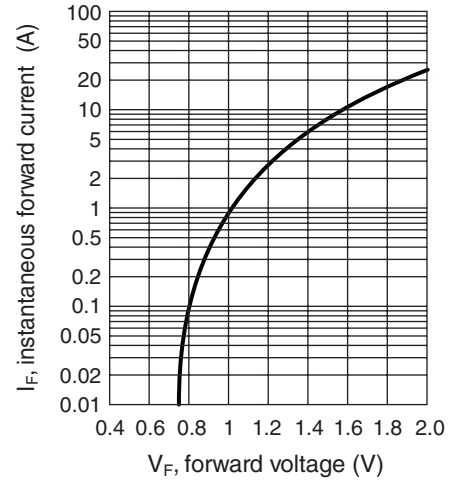
### 1.0 Amp. Surface Mount Top Glass Passivated Rectifier

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

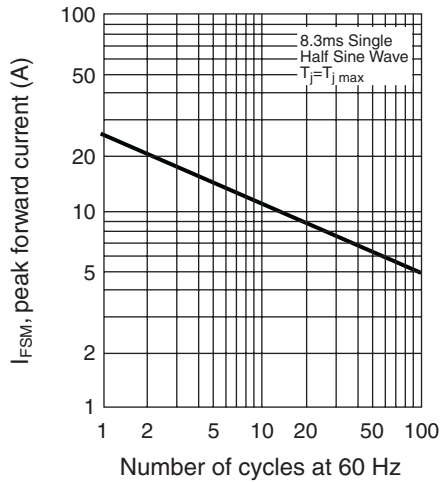
**MAXIMUM FORWARD CURRENT DERATING CURVE**



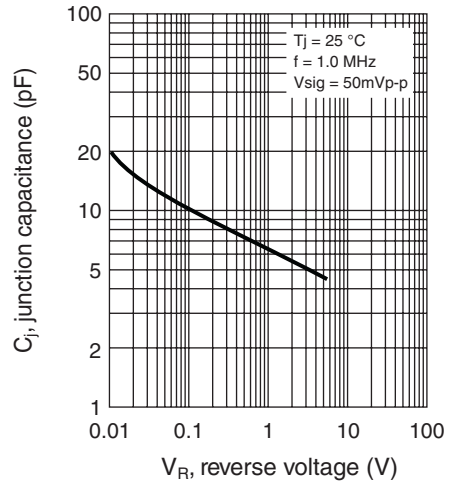
**TYPICAL FORWARD CHARACTERISTICS**



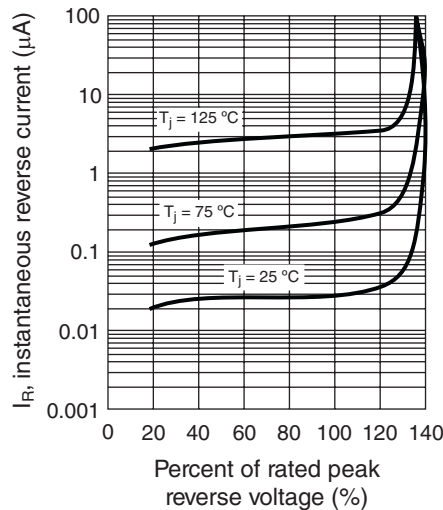
**MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**TYPICAL JUNCTION CAPACITANCE**



**TYPICAL REVERSE CHARACTERISTICS**



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

<b>Date</b>	<b>Revision</b>	<b>Description of Changes</b>
29-Apr-2013	0	Original Data Sheet

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