

**Surface Mount Glass Passivated Standard Rectifier**

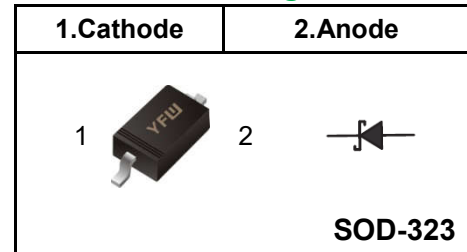
 Reverse Voltage 1000 V  
 Forward Current - 1.0A

**FEATURES**

- ◆ Low Forward Voltage Drop
- ◆ Guard Ring Construction for Transient Protection
- ◆ Negligible Reverse Recovery Time
- ◆ Low Capacitance
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

**MECHANICAL DATA**

- ◆ Case: SOD-323
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 5.48mg / 0.00019oz

**Pinning**

**Marking Code**

<b>SM4007WS</b>	<b>T7</b>
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**Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.

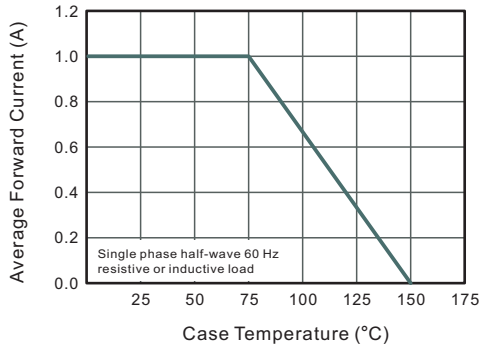
Parameter	Symbols	SM4007WS	Units
Peak Repetitive Reverse Voltage	$V_{RRM}$	1000	V
RMS reverse voltage	$V_{RMS}$	700	V
Working Peak Reverse Voltage	$V_{DC}$	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load	$I_{FSM}$	20	A
Maximum Instantaneous Forward Voltage 1A	$V_F$	1.0	v
Maximum DC Reverse Current $T_a=25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a=125\text{ }^\circ\text{C}$	$I_R$	5 50	$\mu\text{A}$
Typical Thermal Resistance <sup>(1)</sup>	$R_{\theta JA}$	55	$^\circ\text{C/W}$
Typical reverse recovery time <sup>(2)</sup>	$T_{rr}$	1.5	$\mu\text{S}$
Typical junction capacitance <sup>(3)</sup>	$C_j$	5	pF
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150	$^\circ\text{C}$

(1) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

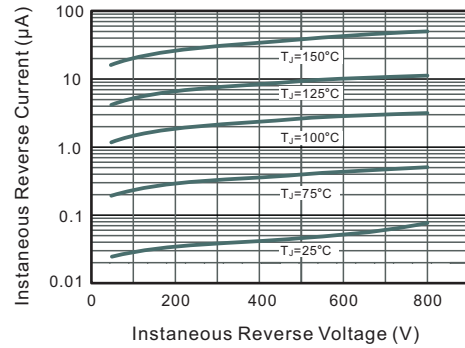
 (2) Measured with  $I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25\text{A}$ 

(3) Measured at 1 MHz and applied reverse voltage of 4 V D.C

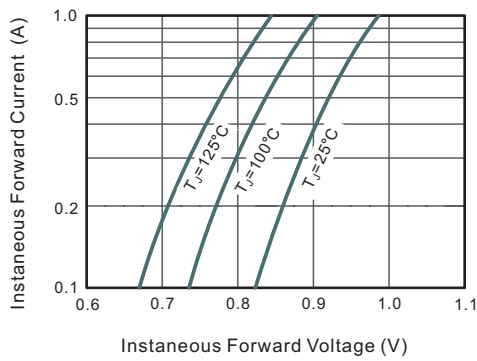
**Fig.1 Forward Current Derating Curve**



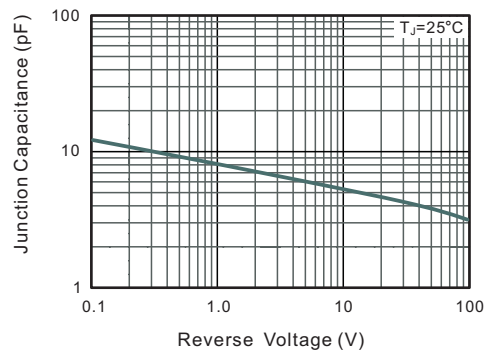
**Fig.2 Typical Instantaneous Reverse Characteristics**



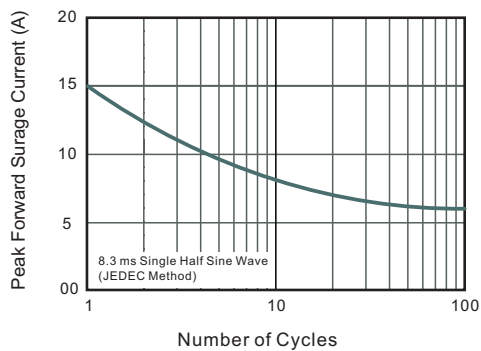
**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**

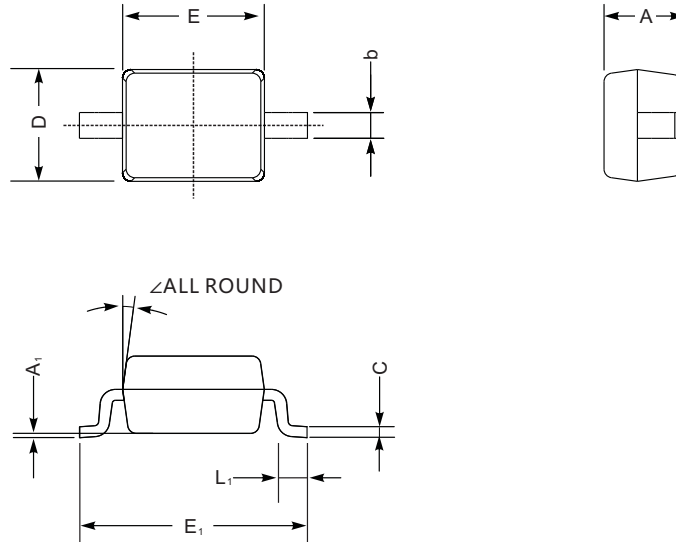


**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



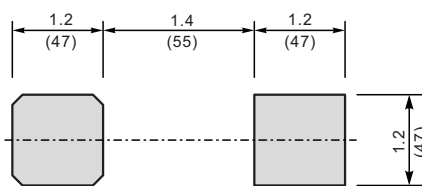
**Package Outline SOD-323**

Plastic surface mounted package; 2 leads



UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

**The recommended mounting pad size**



Unit:  $\frac{\text{mm}}{\text{mil}}$

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOD-323	Tape/Reel, 7" reel	3000	EIA-481-1

单击下面可查看定价，库存，交付和生命周期等信息

[>>YFW\(佑风微\)](#)