SM4007WS SOD-323

Surface Mount Glass Passivated Standard Rectifier
Reverse Voltage 1000 V
Forward Current - 1.0A

Pinning

1.Cathode	2.Anode

SOD-323

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

Marking Code	
SM4007WS	T7

MECHANICAL DATA

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

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 Ta=25 °C at Rated DC Blocking Voltage Ta=125 °C	I_R	5 50	uA
Typical Thermal Resistance(1)	$R_{\theta JA}$	55	°C/W
Typical reverse recovery time(2)	Trr	1.5	uS
Typical junction capacitance(3)	Cj	5	pF
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150	°C

(1) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.
(2) Measured with IF=0.5A,IR =1A, Irr= 0.25A
(3) Measured at 1 MHz and applied reverse voltage of 4 V D.C

Fig.1 Forward Current Derating Curve

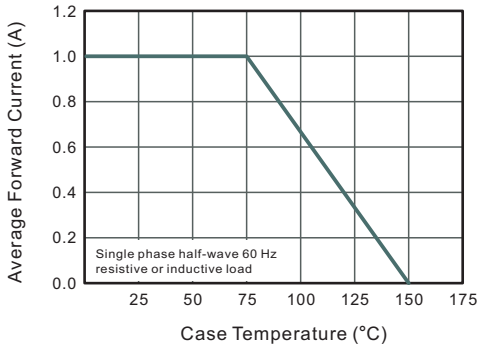


Fig.2 Typical Instaneous Reverse Characteristics

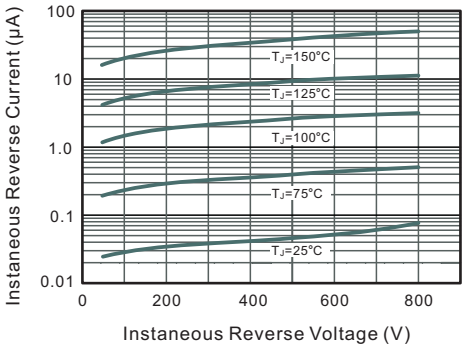


Fig.3 Typical Forward Characteristic

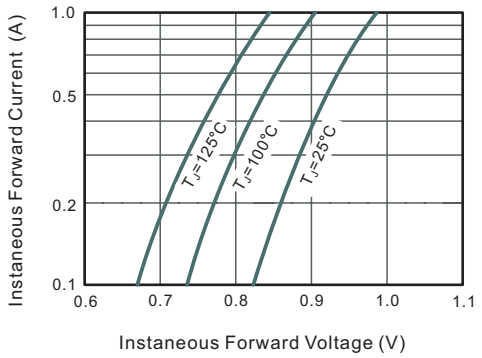


Fig.4 Typical Junction Capacitance

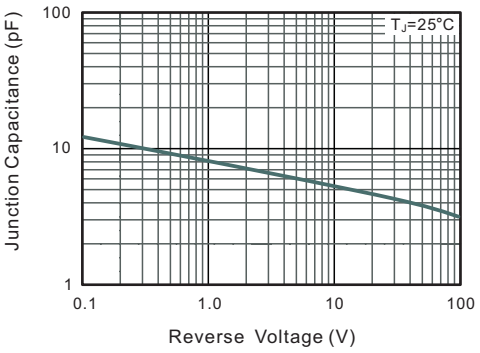
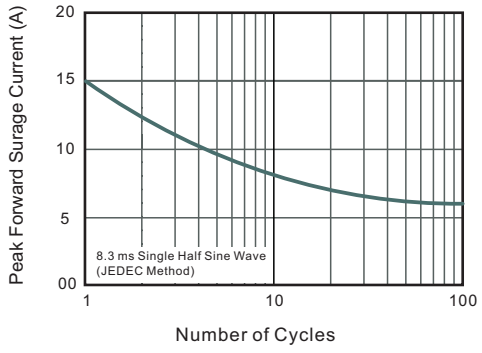


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

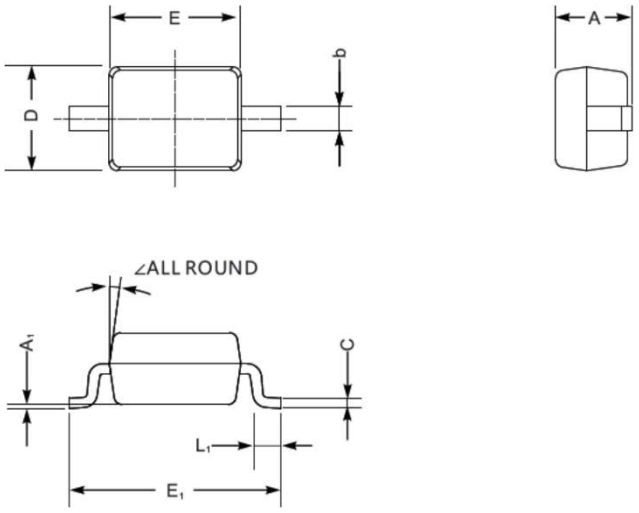


Ordering information

Package	Packing Description	Packing Quantity
SOD-323	Tape/Reel,7”reel	3000PCS/Reel 120000PCS/Carton

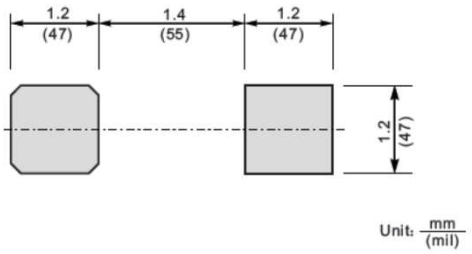
Package Dimensions

SOD-323



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
C	0.08	0.15	3.1	5.9
D	1.2	1.4	47	55
E	1.4	1.8	63	70
E1	2.55	2.75	100	108
b	0.25	0.4	9.8	16
L1	0.2	0.45	7.9	16
A1	-	0.2	-	8
∠	9°			

The recommended mounting pad size



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