

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

1.Cathode	2.Anode
	
SOD-323	

Marking Code

SGP7A	T7
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Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	SGP7A	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⁾	T_{rr}	1.5	uS
Typical junction capacitance ⁽³⁾	C_j	5	pF
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

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

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

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

Fig.1 Forward Current Derating Curve

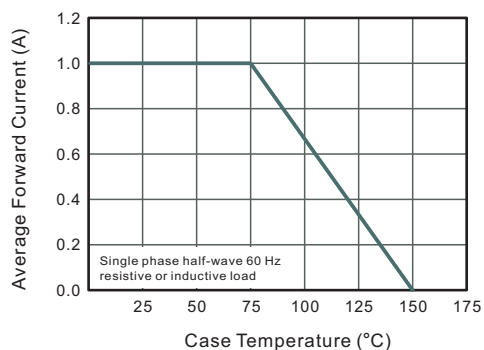


Fig.2 Typical Instantaneous Reverse Characteristics

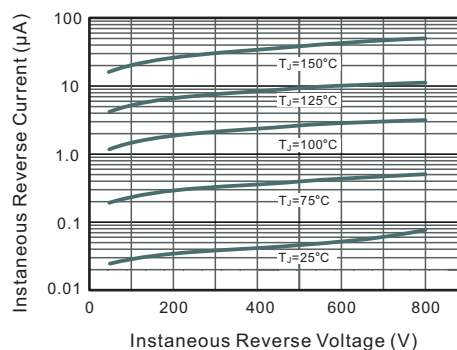


Fig.3 Typical Forward Characteristic

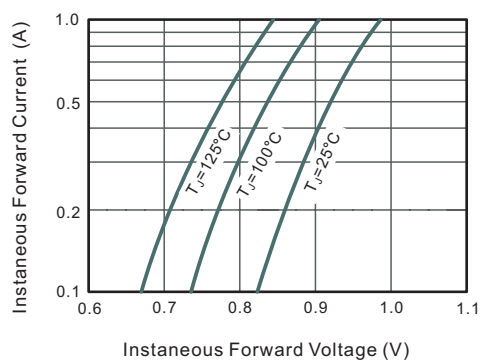


Fig.4 Typical Junction Capacitance

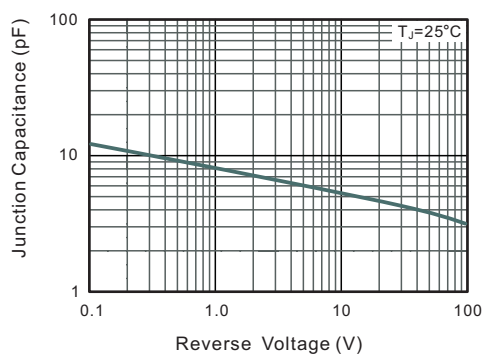
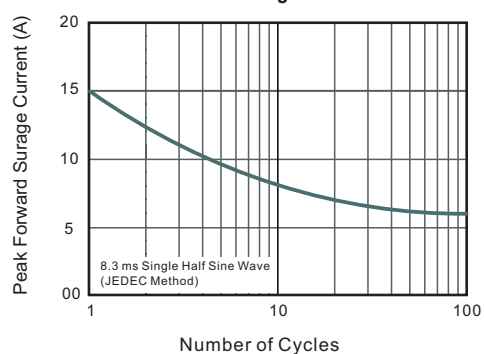


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Ordering information

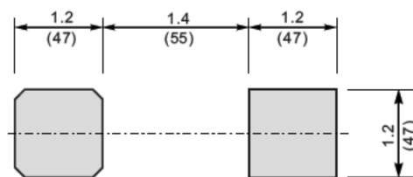
Package	Packing Description	Packing Quantity
SOD-323	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

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



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

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