

Surface Mount Glass Passivated Standard Rectifier

Reverse Voltage - 600 V

Forward Current - 100mA

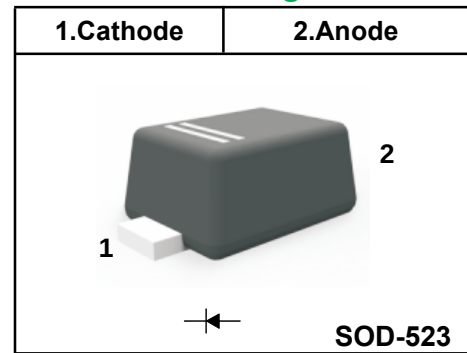
FEATURES

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Easy to pick and place
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives
- ◆ Applied in LED lighting

MECHANICAL DATA

- ◆ Case: SOD-523
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026

Pinning



Marking Code

SGP5AWT	G5
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Maximum Ratings(Ta =25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	600	V
RMS Reverse Voltage	$V_R(RMS)$	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Average Rectified Output Current	I_F	100	mA
Non-Repetitive Peak Forward Surge Current at t=8.3ms	I_{FSM}	3.5	A
Operating Temperature Range	T_J	-55 to 150	°C
Storage Temperature Range	T_{STG}	-55 to 150	°C

Electrical Characteristics(Ta=25°C unless otherwise noted)

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward Voltage	$I_F=50mA$	V_F			1.1	V
Reverse Leakage Current	$V_R=600V, T_a=25°C$	I_R			5	μA
Reverse Leakage Current	$V_R=600V, T_a=125°C$	I_R			100	μA
Junction Capacitance	$V_R=4V, f=1MHz$	C_J			5	pF

Fig.1 Average Rectified Output Current Derating Curve

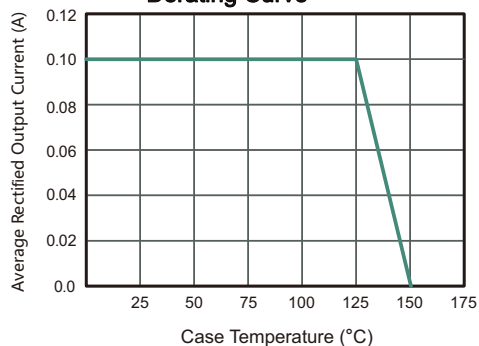


Fig.2 Typical Reverse Characteristics

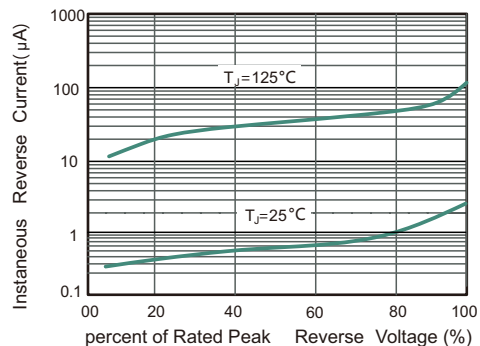


Fig.3 Typical Instantaneous Forward Characteristics

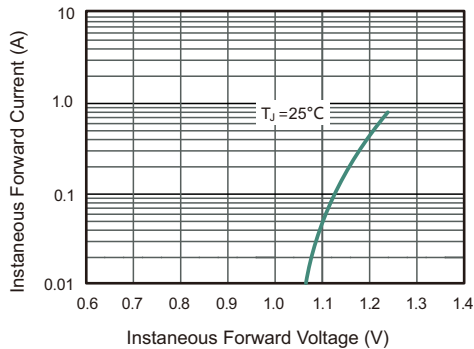


Fig.4 Typical Junction Capacitance

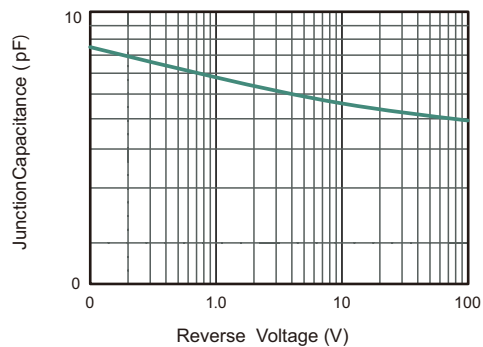
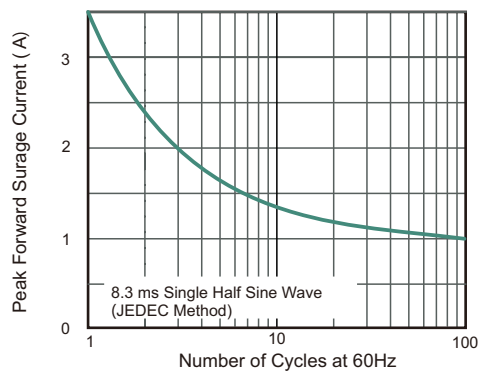


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Ordering information

Package	Packing Description	Packing Quantity
SOD-523	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-523

Top view of a rectangular component with rounded corners. Dimension A is the height, HE is the total width, and C is the thickness. A note indicates "ALL ROUND" for the corners.

Side view of the component showing height A and width E. A dimension P indicates the radius of the top edge.

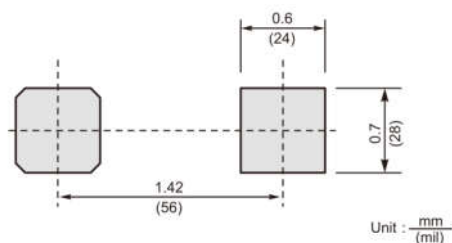
Bottom view of the component showing dimensions D (length), E (width), e (thickness of the central part), and L (length of the side flaps).

Bottom view of the component showing dimensions N (width of the side flaps) and the central rectangular area.

底视图
bottom view

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.51	0.77	20	30
e	0.25	0.35	10	14
C	0.08	0.15	3	6
D	1.10	1.30	43	51
E	0.75	0.99	30	39
HE	1.50	1.70	59	67
N	0.35ref		14ref	
L	0.2ref		8ref	
P	R0.1 ALL ROUND		R4.0 ALL ROUND	
∠	10°			

The recommended mounting pad size



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