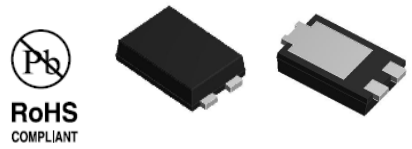
SGC0501A thru SGC0507A

Surface Mount Glass Passivated Rectifier

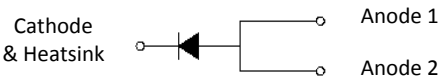
Reverse Voltage 50~1000V Forward Current 5A

Features

- Glass passivated standard rectifiers
- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile - typical height of 1.1 mm



eSGC (TO-277)



Typical Applications

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies, and other consumer applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbol	SGC0501A	SGC0502A	SGC0503A	SGC0504A	SGC0505A	SGC0506A	SGC0507A	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	IF(AV)(1)	5.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	150							A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150							°C

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

Parameter	Test Conditions	Symbol	SGC0501A	SGC0502A	SGC0503A	SGC0504A	SGC0505A	SGC0506A	SGC0507A	Unit
Maximum instantaneous forward voltage	IF=5 A ,TA=25℃	VF	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25℃	IR	5							μA
	TA=125℃		100							
Typical reverse recovery time	I_F=0.5A,I_R=1.0A, I_{rr}=0.25A	t_{rr}	3.4							uS
Typical junction capacitance	4.0 V, 1 MHz	CJ	30							pF
Typical thermal resistance[1)]	juntion to mount	$R_{\theta JM}$	5							℃/W
	juntion to ambient	$R_{\theta JA}$	30							

Notes: 1)Thermal resistance RθJM is junction to mount.Mounted on P.C.B with 30*30mm copper pad area

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

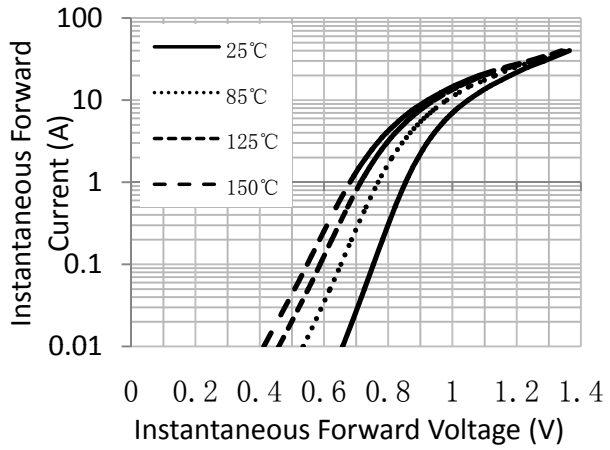


Figure 1. Typical Instantaneous Forward Characteristics

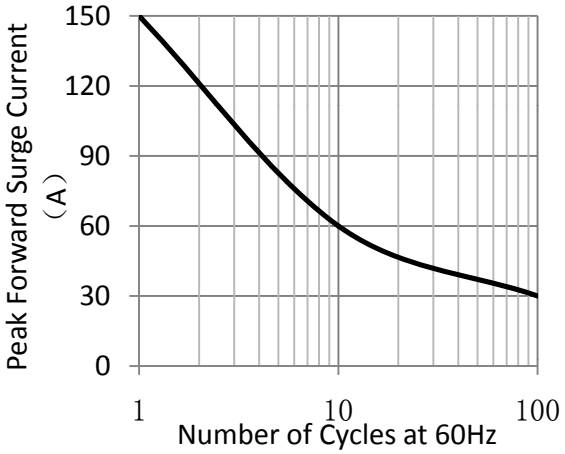


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

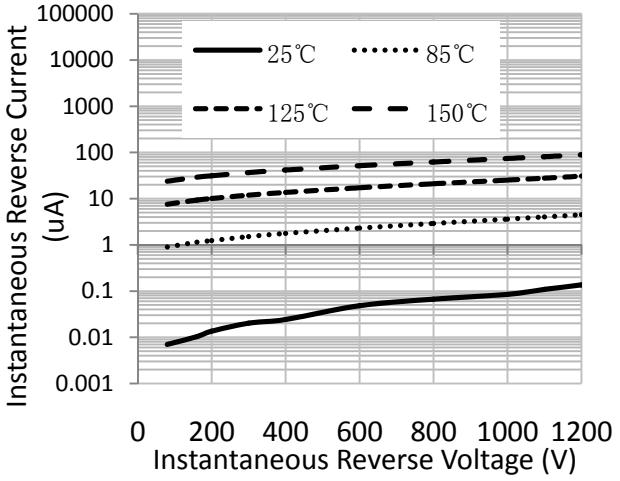


Figure 3. Typical Reverse Characteristics

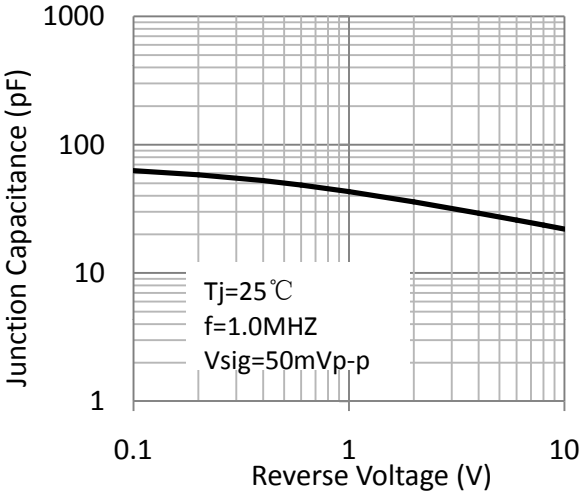


Figure 4. Typical Junction Capacitance

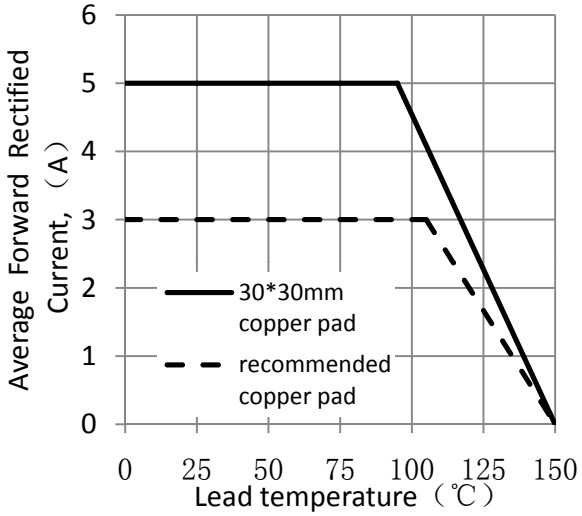
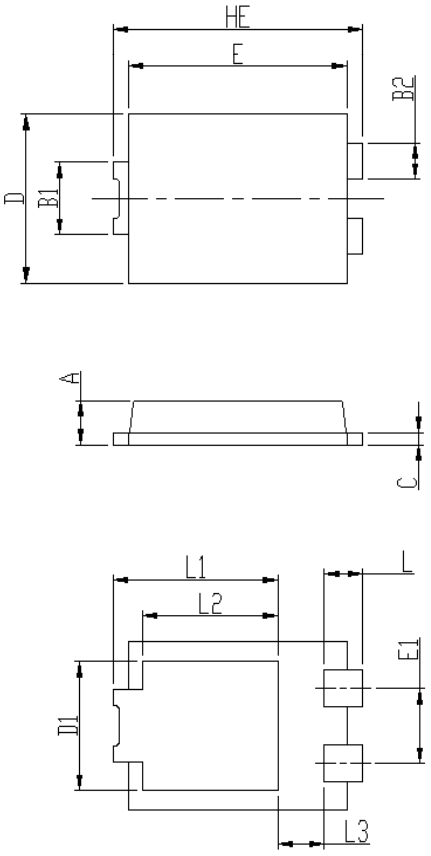


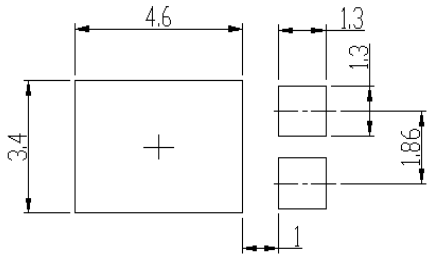
Figure 5.Forward Current Derating Curve

Package Outline Dimensions



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	0.260
E	5.6	5.8	0.220	0.228
D	4.1	4.3	0.161	0.169
B1	1.7	1.9	0.067	0.075
B2	0.8	1	0.031	0.039
A	1.05	1.2	0.041	0.047
C	0.3	0.4	0.012	0.016
L	0.85	1.1	0.033	0.043
L1	4.2	4.4	0.165	0.173
L2	3.52 Typ.		0.139 Typ.	
L3	1.1	1.4	0.043	0.055
D1	3	3.3	0.118	0.130
E1	1.86 Typ.		0.073 Typ.	

Soldering footprint

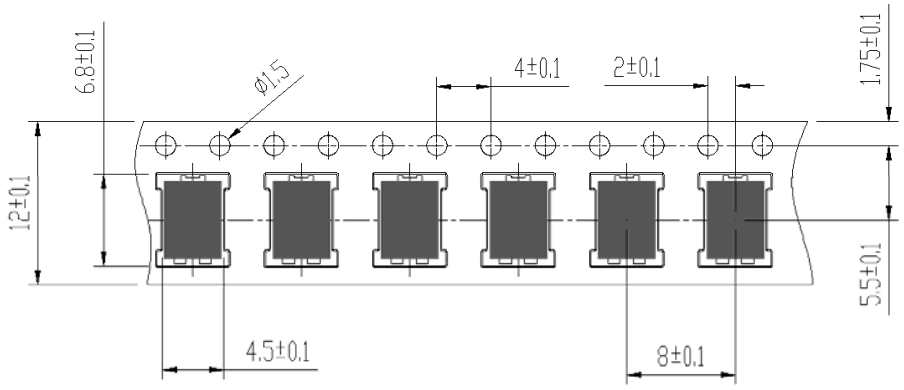


Packing Information

Packing quantities:

5000 pcs/Reel，12mm Tape, 13" Reel

Tape & Reel Specification



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