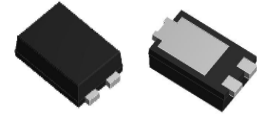
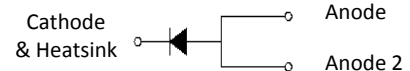


## Features

- Glass passivated standard rectifiers
- Ideal for automated placement
- Low forward voltage drop
- 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	SGC0301 A	SGC0302 A	SGC0303 A	SGC0304 A	SGC0305 A	SGC0306 A	SGC0307 A	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)	3.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	80							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	SGC0301 A	SGC0302 A	SGC0303 A	SGC0304 A	SGC0305 A	SGC0306 A	SGC0307 A	Unit
Maximum instantaneous forward voltage	IF=3 A, TA=25°C	VF	1.1				Volts			
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	10				µA			
	TA=125°C		250							
Typical reverse recovery time	IF=0.5A, IR=1.0A, Irr=0.25A	t <sub>rr</sub>	3				µS			
Typical junction capacitance	4.0 V, 1 MHz	CJ	25				pF			
Typical thermal resistance <sup>1)</sup>	junction to mount	R <sub>θJM</sub>	5				°C/W			
	junction to ambient	R <sub>θJA</sub>	35							

Notes: 1) Thermal resistance R<sub>θJM</sub> is junction to mount. Mounted on P.C.B with 30\*30mm copper pad area



# SGC0301A thru SGC0307A

Surface Mount Glass Passivated Rectifier  
Reverse Voltage 50~1000V Forward Current 3A

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

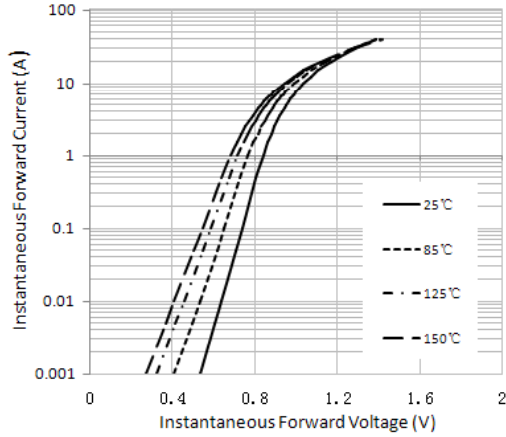


Figure 1. Typical Instantaneous Forward Characteristics

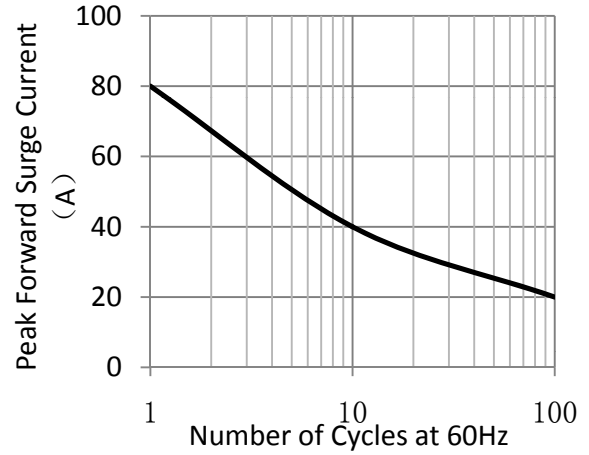


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

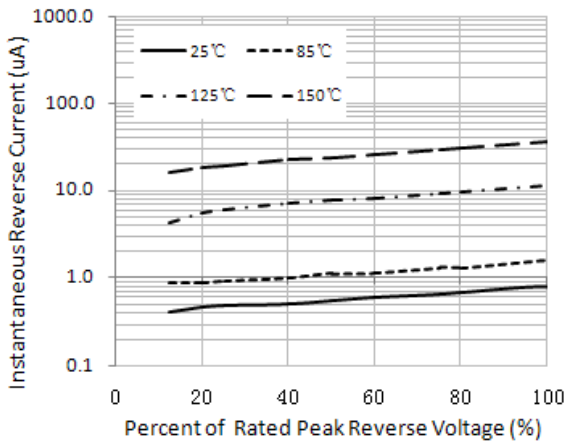


Figure 3. Typical Reverse Characteristics

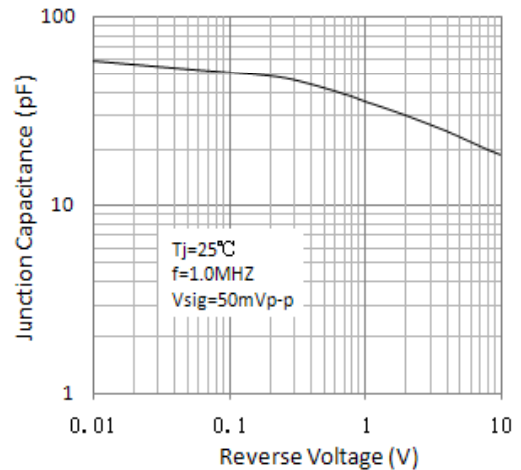


Figure 4. Typical Junction Capacitance

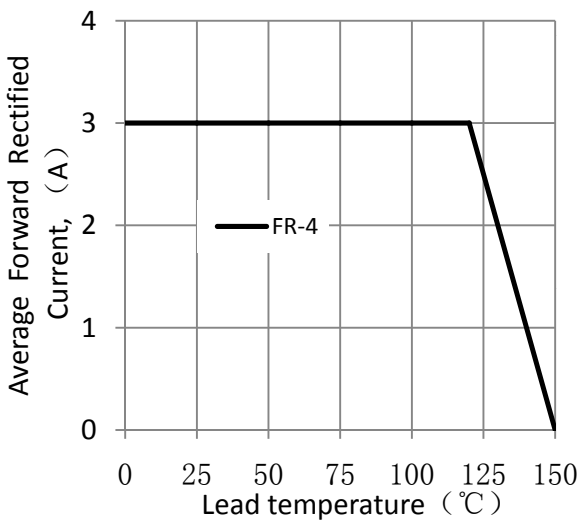
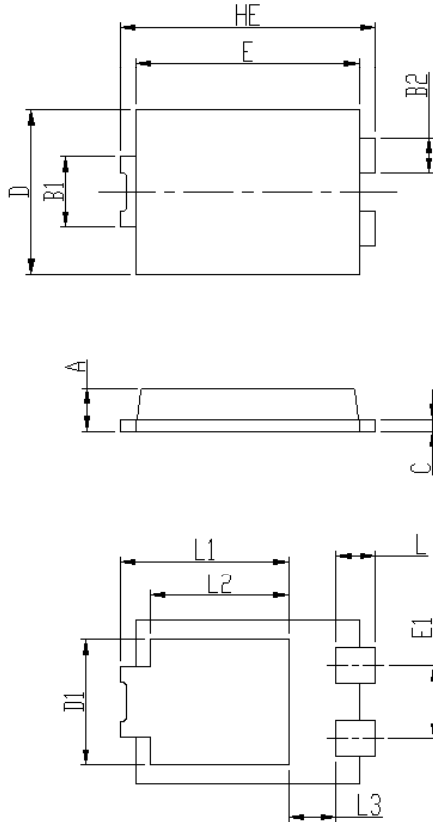


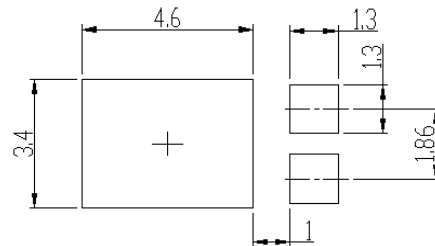
Figure 5. Forward Current Derating Curve

## 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

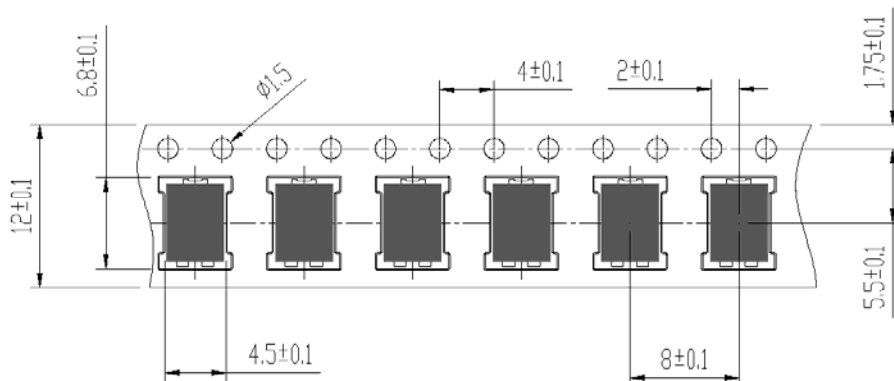


## Packing Information

### Packing quantities:

5000 pcs/Reel, 12mm Tape, 13" Reel

### Tape & Reel Specification





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