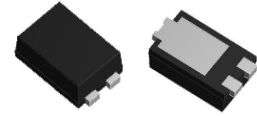
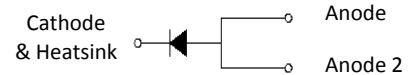


Features

- Glass passivated standard rectifiers
- Ideal for automated placement
- Low forward voltage drop
- High forward surge
- 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 AU	SGC0302 AU	SGC0303 AU	SGC0304 AU	SGC0305 AU	SGC0306 AU	SGC0307 AU	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	125							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 AU	SGC0302 AU	SGC0303 AU	SGC0304 AU	SGC0305 AU	SGC0306 AU	SGC0307 AU	Unit
Maximum instantaneous forward voltage	IF=3 A ,TA=25°C	VF	0.98							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 _{rr}	3							uS
Typical junction capacitance	4.0 V, 1 MHz	CJ	25							pF
Typical thermal resistance ¹⁾	junction to mount	R _{θJM}	5							°C/W
	junction to ambient	R _{θJA}	35							

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



Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

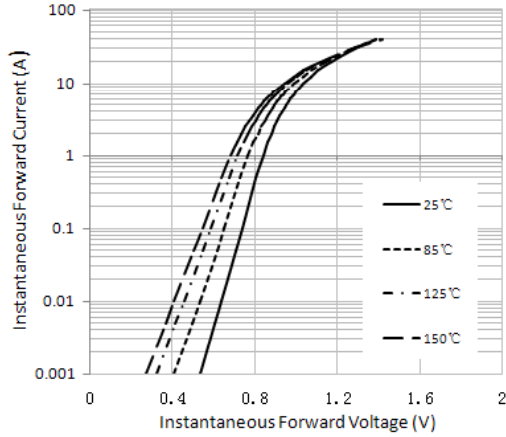


Figure 1. Typical Instantaneous Forward Characteristics

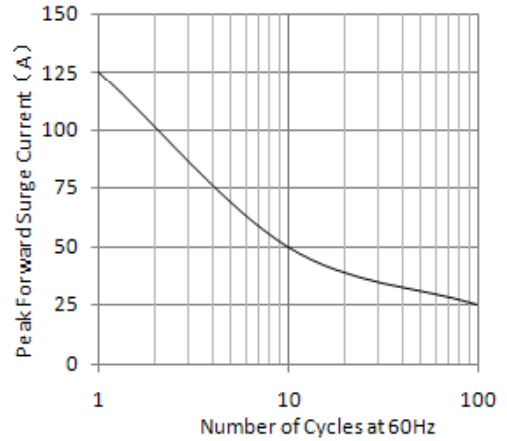


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

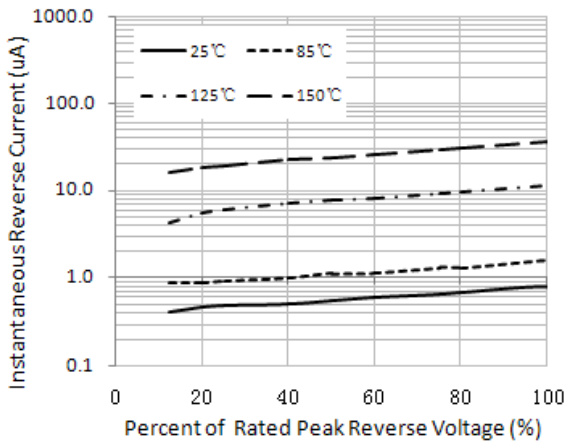


Figure 3. Typical Reverse Characteristics

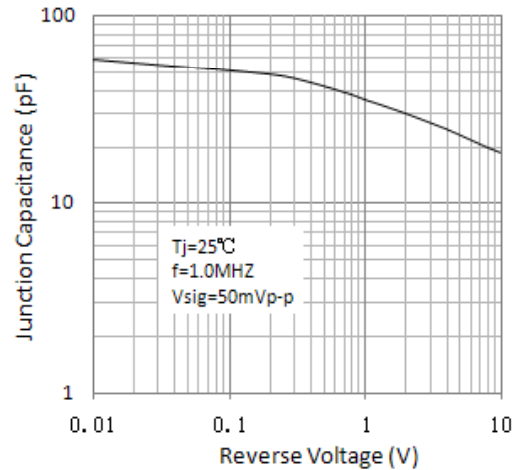


Figure 4. Typical Junction Capacitance

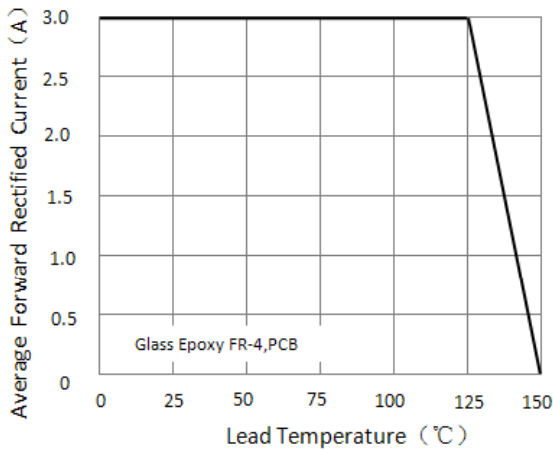


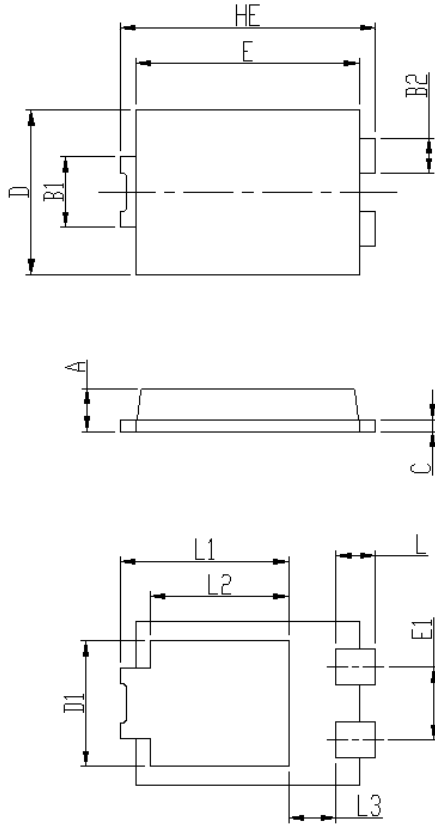
Figure 5. Forward Current Derating Curve



SGC0301AU thru SGC0307AU

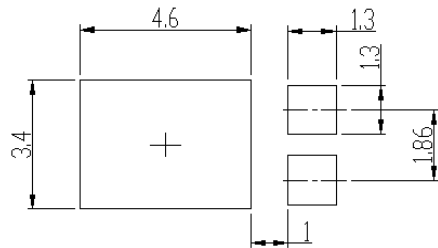
Surface Mount Glass Passivated Rectifier
Reverse Voltage 50~1000V Forward Current 3A

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

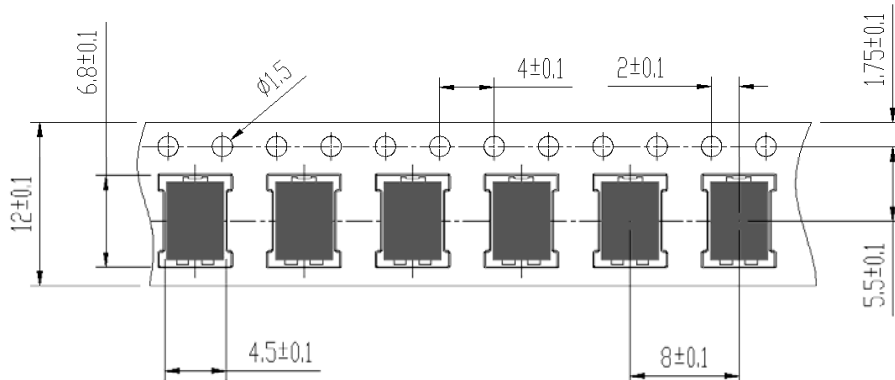


Packing Information

Packing quantities:

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

Tape & Reel Specification





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