

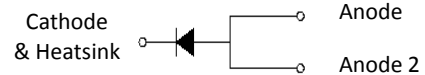
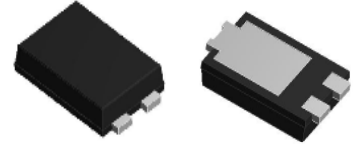


SGC0303U thru SGC0306U

Surface Mount Glass Passivated superfast recovery Rectifier
Reverse Voltage 200~800V Forward Current 3A

Features

- Glass passivated Superfast Recovery rectifiers
- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- AEC-Q101 qualified
- Low profile - typical height of 1.1 mm



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	SGC0303U	SGC0304U	SGC0305U	SGC0306U	Unit
Maximum repetitive peak reverse voltage	VRRM	200	400	600	800	V
Maximum RMS voltage	VRMS	140	280	420	560	V
Maximum DC blocking voltage	VDC	200	400	600	800	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	100				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	SGC0303U	SGC0304U	SGC0305U	SGC0306U	Unit
Maximum instantaneous forward voltage	3 A	VF	0.95	1.3	1.7		Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	10				µA
	TA=125°C		300				
Maximum reverse recovery time	IF=0.5A, IR=1.0A, IRR=0.25A	t _{rr}	35			nS	
Typical junction capacitance	4.0 V, 1 MHz	CJ	22			pF	
Typical thermal resistance ¹⁾	junction to mount	R _{θJM}	15			°C/W	

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



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Ratings and Characteristics Curves

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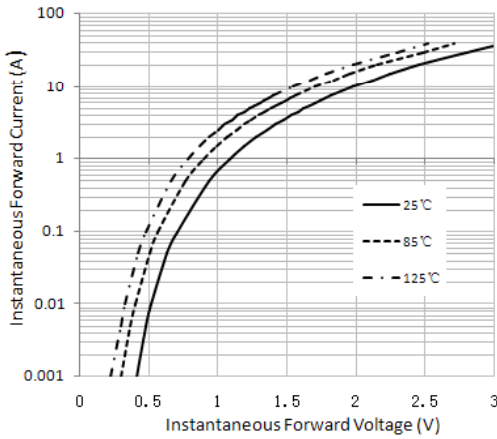


Figure 1. Typical Instantaneous Forward Characteristics

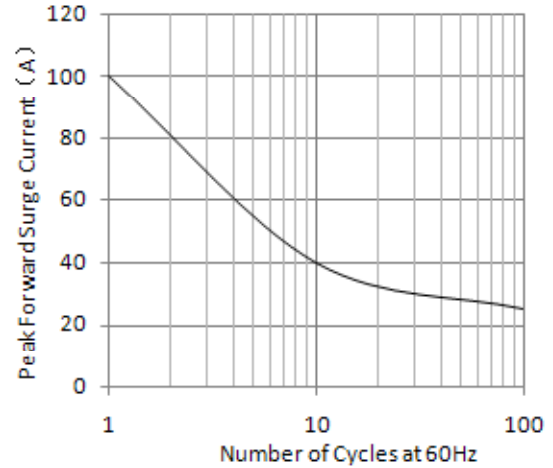


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

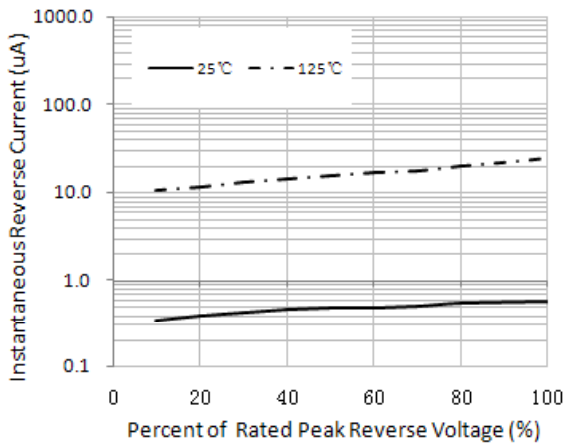


Figure 3. Typical Instantaneous Reverse Characteristics

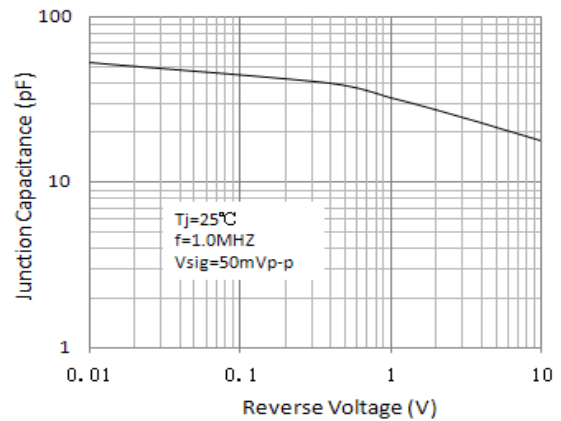


Figure 4. Typical Junction Capacitance

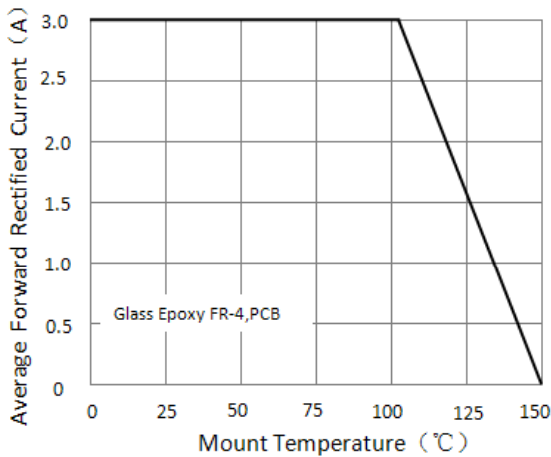


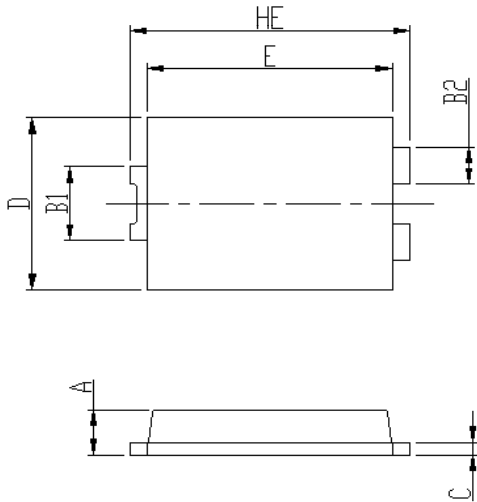
Figure 5. Forward Current Derating Curve



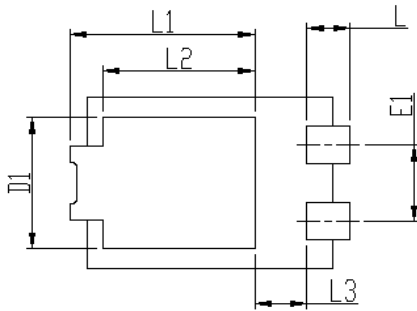
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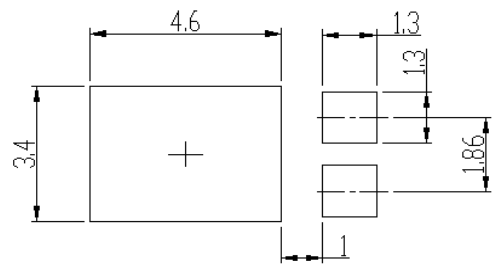
Package Outline Dimensions



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

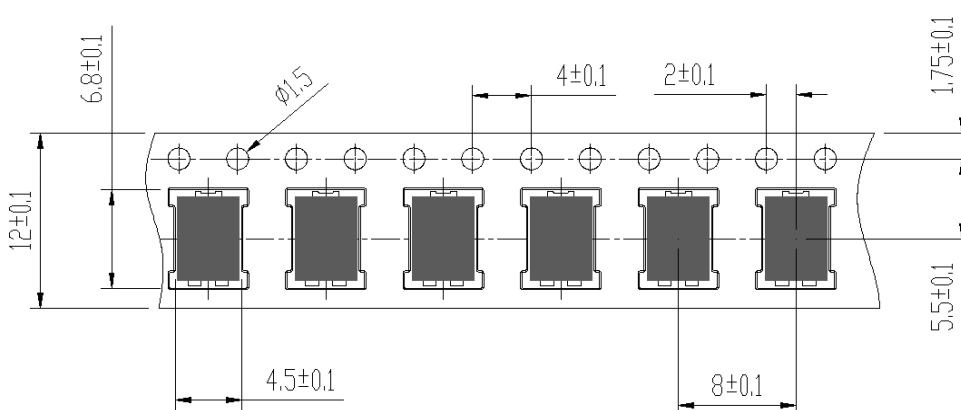


Packing Information

Packing quantities:

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

Tape & Reel Specification





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