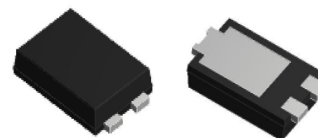


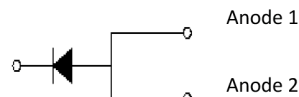
Features

- Heatsink design
- Schottky barrier diodes
- Low leakage current
- Solder dip 260 °C, 10 s
- Low forward voltage drop
- Low profile - typical height of 1.1 mm
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds



eSGC (TO-277)

Cathode
& Heatsink



Typical Applications

For low voltage high frequency inverters, DC/DC converters and polarity protection application.

Maximum Ratings (TA = 25 °C unless otherwise noted)									
Parameter	Symbol	SGC0320S	SGC0330S	SGC0340S	SGC0345S	SGC0350S	SGC0360S	SGC0365S	Unit
Maximum repetitive peak reverse voltage	VRRM	20	30	40	45	50	60	65	V
Maximum RMS voltage	VRMS	14	21	28	31.5	35	42	45.5	V
Maximum DC blocking voltage	VDC	20	30	40	45	50	60	65	V
Maximum average forward rectified current	IF(AV) ¹⁾	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	SGC0320S thru SGC0345S	SGC0350S thru SGC0365S
Maximum instantaneous forward voltage	IF=3A	TA=25°C	VF	0.50	0.70
Maximum DC reverse current at rated DC blocking voltage	Rated VR	TA=25°C	IR	0.3	
		TA=125°C		50	
Typical junction	4.0 V, 1 MHz		CJ	230	160
Typical thermal resistance	junction to lead pad		RθJL ¹⁾	20	

Note1) Thermal resistance RθJL is junction to lead, mounted on P.C.B with 30*30mm copper pad area

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

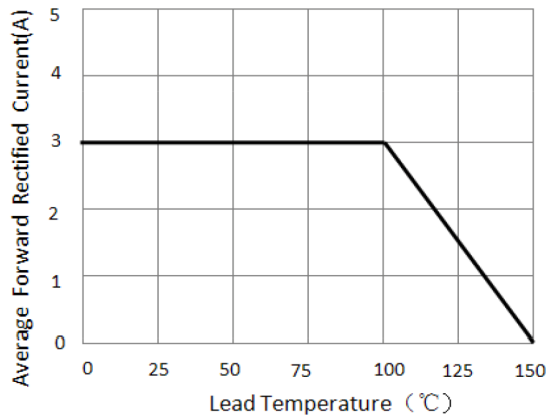


Figure 1. Forward Current Derating Curve

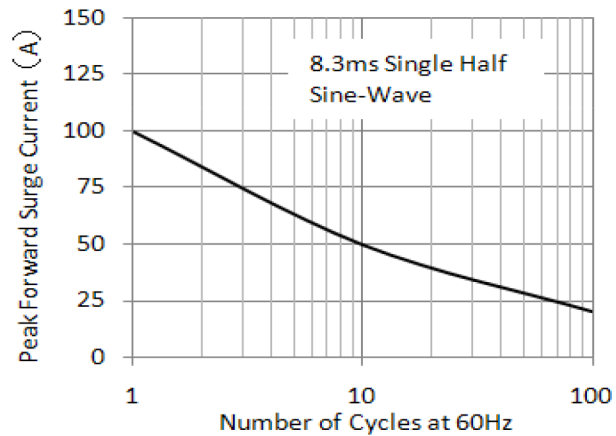


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

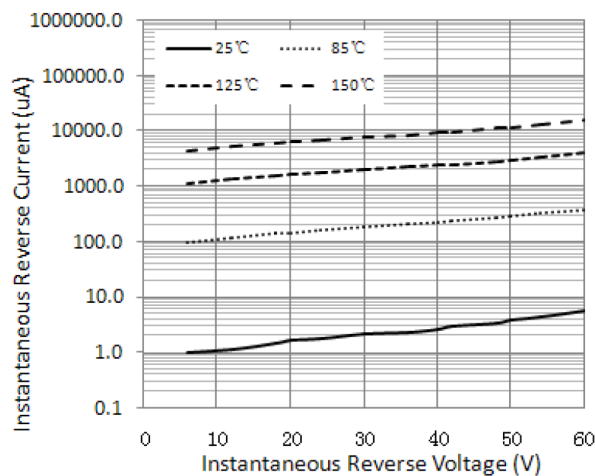


Figure 3. Typical Reverse Characteristics

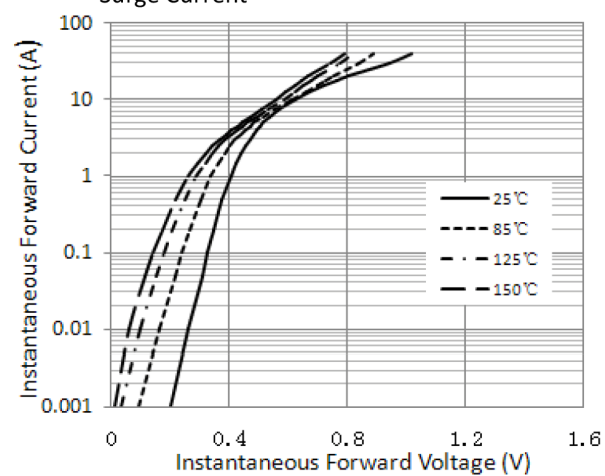


Figure 4. Typical Instantaneous Forward Characteristics (SGC0320S thru SGC0345S)

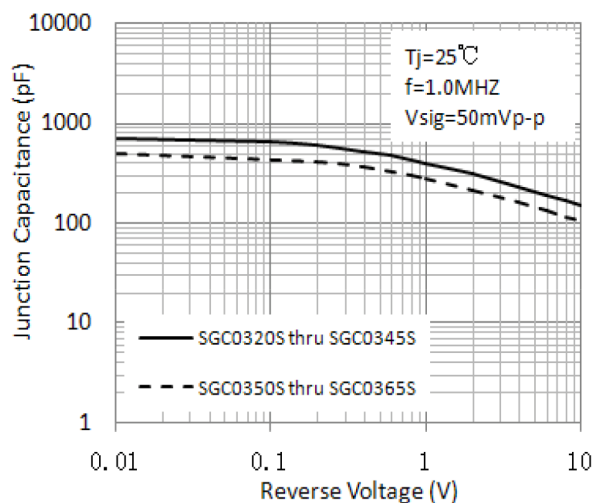


Figure 5. Typical Junction Capacitance

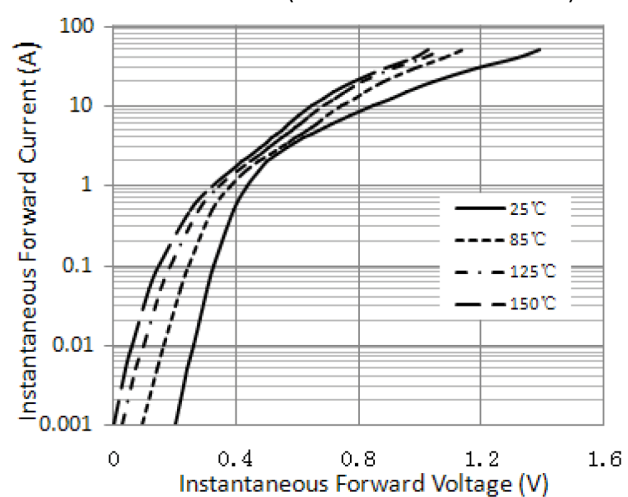
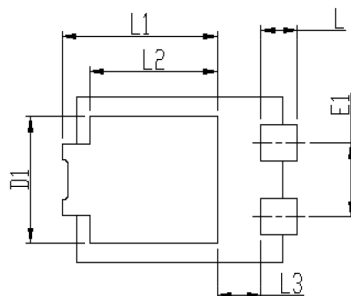
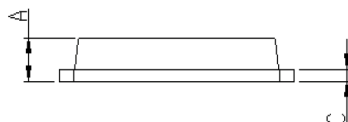
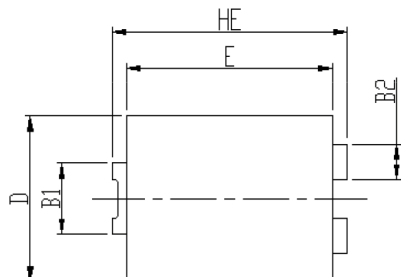


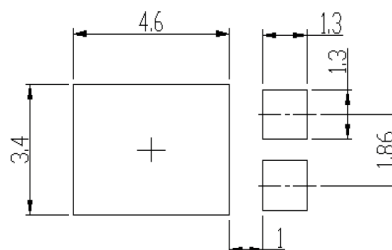
Figure 6. Typical Instantaneous Forward Characteristics (SGC0350S thru SGC0365S)

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

