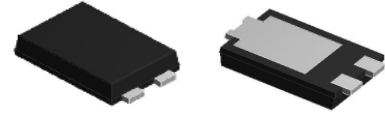
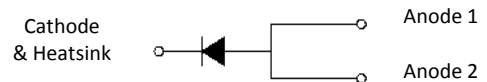


Features

- Schottky barrier diodes
- 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
- Heatsink design
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



eSGC (TO-277)



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	SGC0550S	SGC0560S	Unit
Maximum repetitive peak reverse voltage	VRRM	50	60	V
Maximum RMS voltage	VRMS	35	42	V
Maximum DC blocking voltage	VDC	50	60	V
Maximum average forward rectified current	IF(AV) ¹⁾	5.0		A
	IF(AV) ²⁾	3.0		
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	175		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	TYP.	MAX.	Unit	
Instantaneous forward voltage	IF=1A	TA=25°C	VF	0.40	-	Volts	
				IF=2A	0.44		-
				IF=5A	0.52		0.65
	IF=1A	TA=75°C		0.35	-		
				IF=2A	0.40		-
				IF=5A	0.50		-
	IF=1A	TA=125°C		0.28	-		
				IF=2A	0.35		-
				IF=5A	0.47		0.6
Maximum DC reverse current at rated DC blocking voltage	Rated VR	TA=25°C	IR	0.04	0.2	mA	
		TA=75°C		0.6	3		
		TA=125°C		8.7	30		
Typical junction capacitance	4.0 V, 1 MHz		CJ	220		pF	
Typical thermal resistance	junction to mout pad		RθJM ¹⁾	15		°C/W	

Note1): Mounted on Aluminum Substrate PCB

2): Mounted on recommended copper pad area, free air.

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

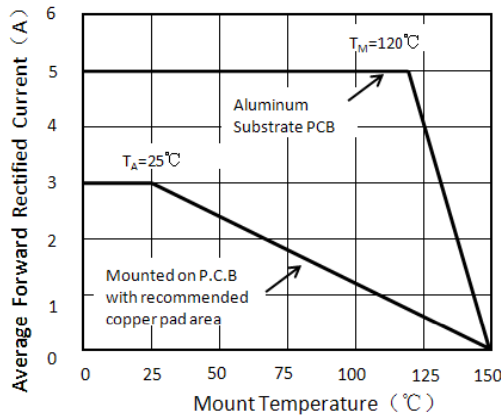


Figure 1. Forward Current Derating Curve

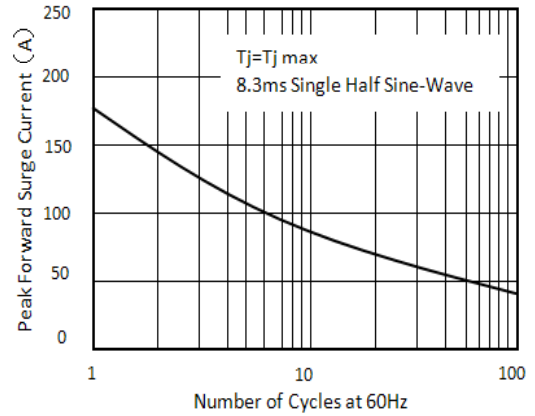


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

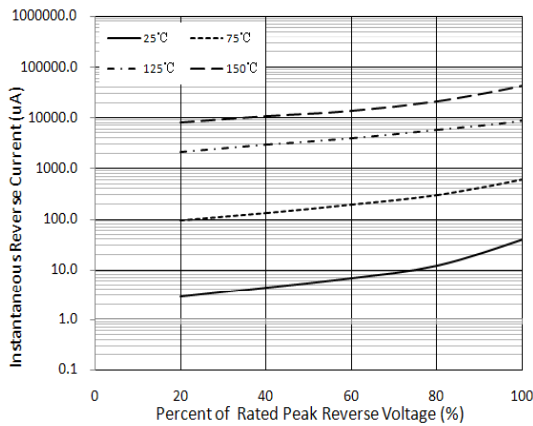


Figure 3. Typical Reverse Characteristics

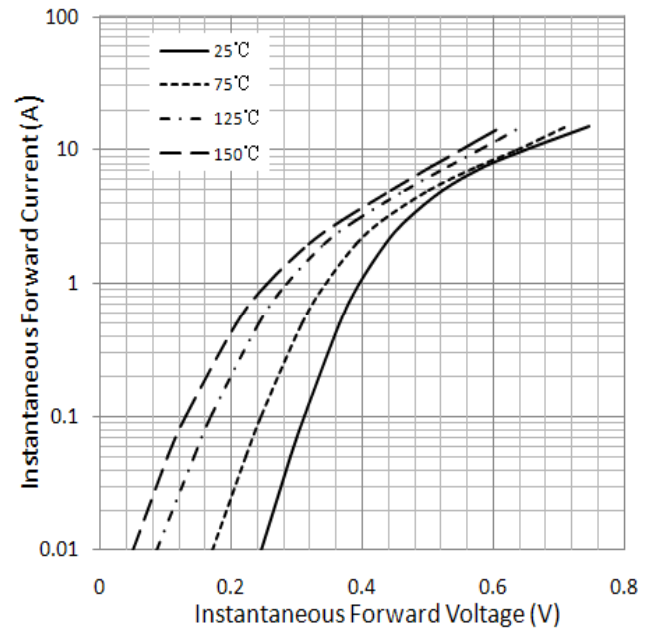
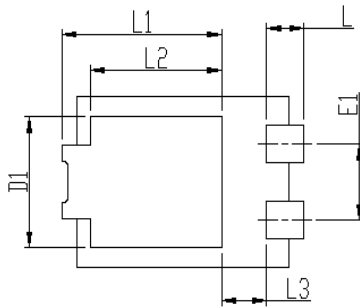
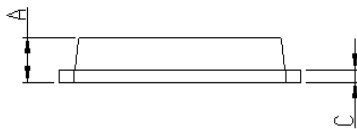
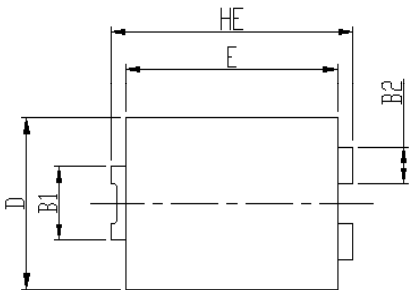


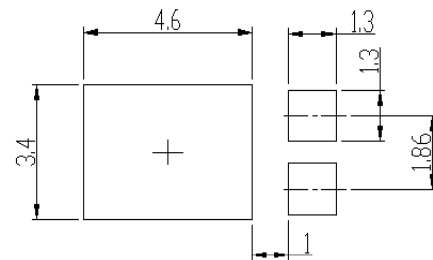
Figure 4. Typical Instantaneous Forward Characteristics

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

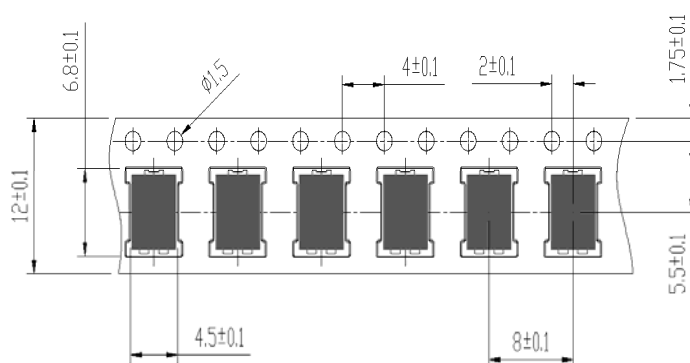


Packing Information

Packing quantities:

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

Tape & Reel Specification





SGC0550S thru SGC0560S

Surface Mount Schottky Rectifier
Reverse Voltage 50~60V Forward Current 5A

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