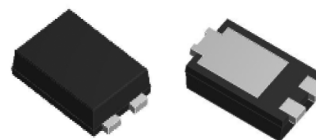
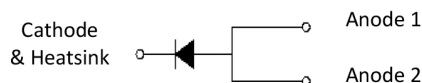


Features

- 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	SGC2050S	SGC2060S	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)	20.0		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	300		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	I _F =1A	T _A =25°C	V _F	0.29	-	Volts
	I _F =3A			0.34	-	
	I _F =5A			0.37	-	
	I _F =20A			0.54	0.70	
	I _F =1A	T _A =125°C		0.19	-	
	I _F =3A			0.26	-	
	I _F =5A			0.31	-	
	I _F =20A			0.53	0.65	
Reverse current at rated DC blocking voltage	Rated VR	T _A =25°C	I _R	0.06	0.5	mA
		T _A =125°C		-	200	
Typical junction capacitance	4.0 V, 1 MHz		C _J	0.95		nF
Typical thermal resistance	junction to mount		R _{θJM} ¹⁾	3		°C/W

Note1) Thermal resistance REJM 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)

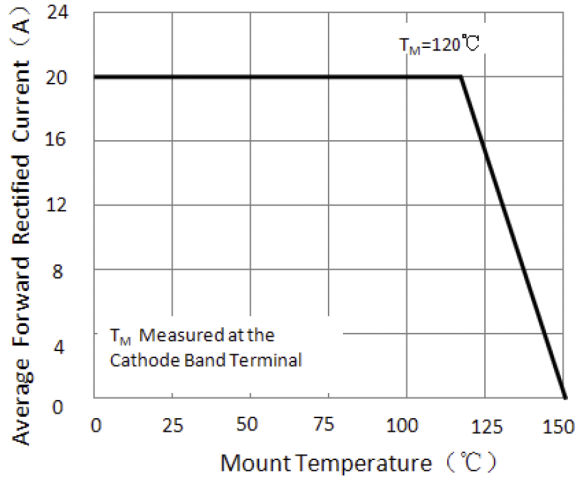


Figure 1. Forward Current Derating Curve

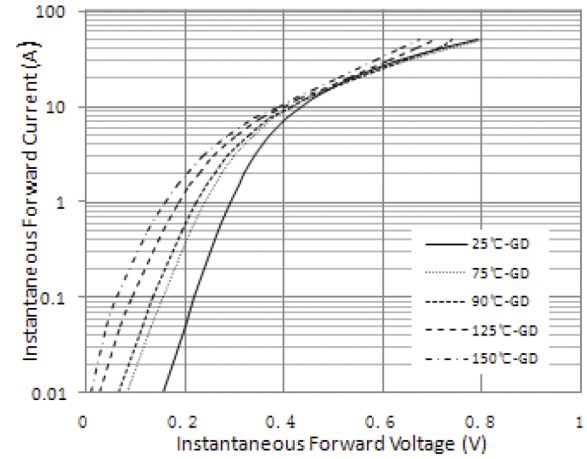


Figure 2. Typical Instantaneous Forward Characteristics

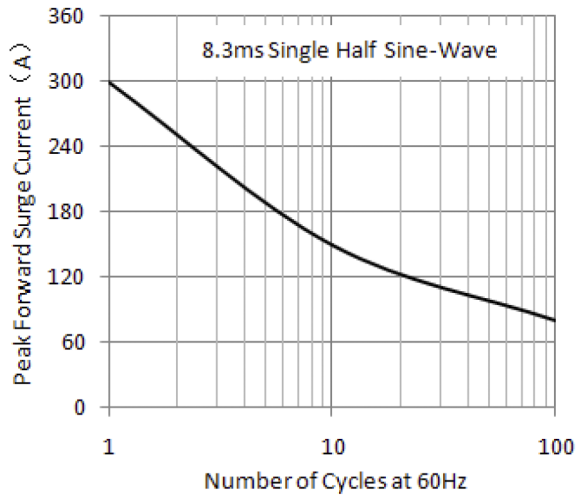


Figure 3. Maximum Non-Repetitive Peak Forward Surge Current

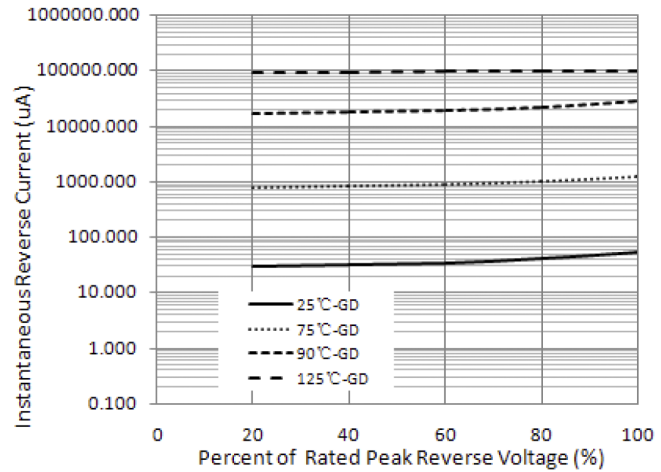
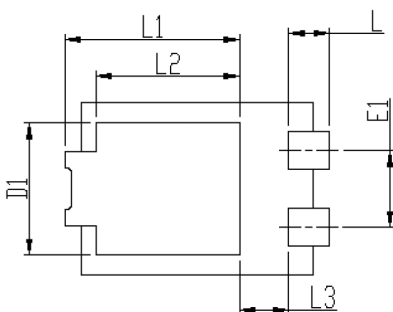
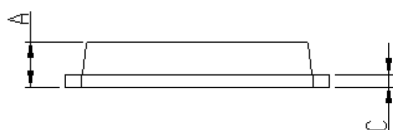
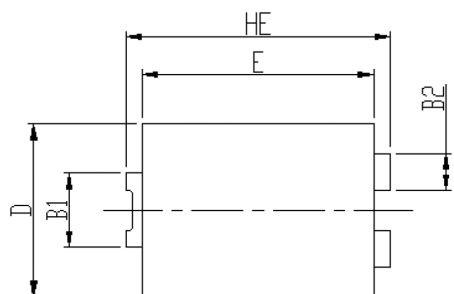


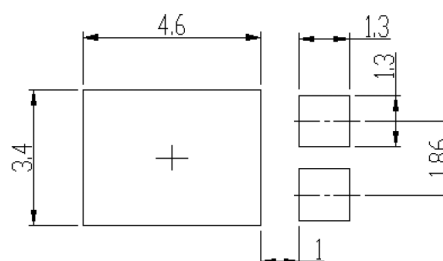
Figure 4. Typical Reverse Characteristics

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

