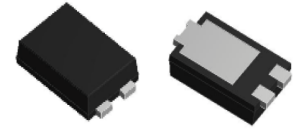
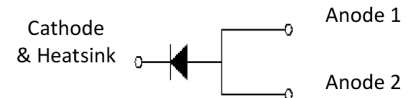


Features

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



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	SGC1050S	SGC1060S	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)	10.0		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	280		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
Maximum instantaneous forward voltage	I _F =1A	T _A =25°C	V _F	0.30	0.35	Volts
	I _F =2A			0.33	0.38	
	I _F =10A			0.46	0.5	
	I _F =1A	T _A =125°C		0.20	-	
	I _F =2A			0.24	-	
	I _F =10A			0.45	-	
Maximum DC reverse current at rated DC blocking voltage	Rated VR	T _A =25°C	I _R	0.05	0.15	mA
		T _A =125°C		16	30	
Typical junction capacitance	4.0 V, 1 MHz		C _J	540		pF
Typical thermal resistance ¹⁾	junction to lead		R _{θJL}	20		°C/W

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)

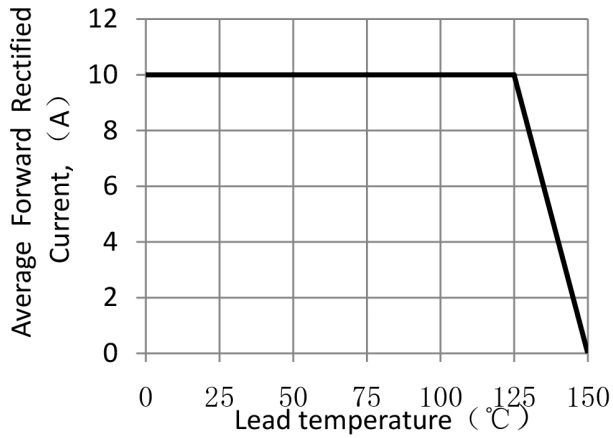


Figure 1. Forward Current Derating Curve

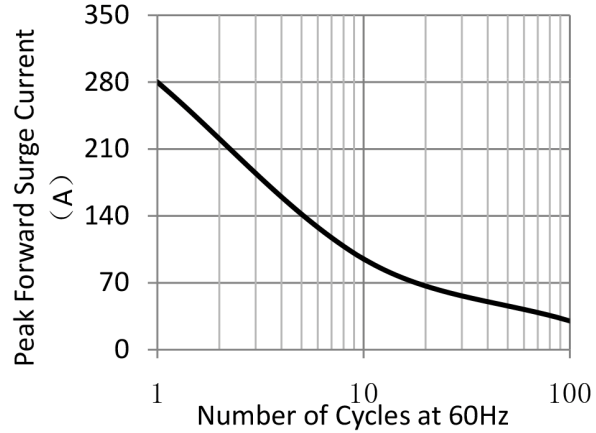


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

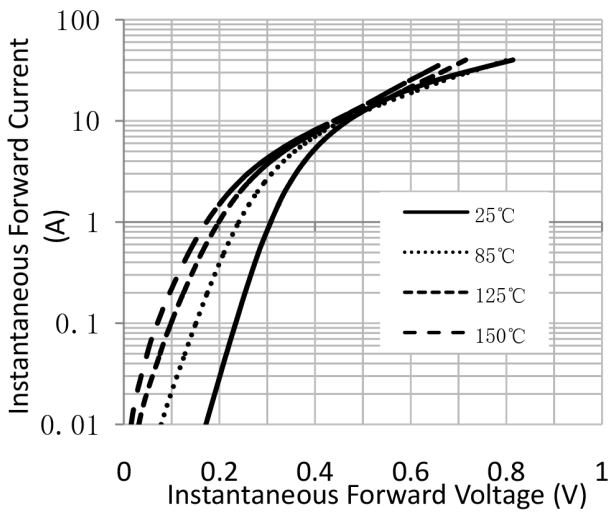


Figure 3. Typical Instantaneous Forward Characteristics

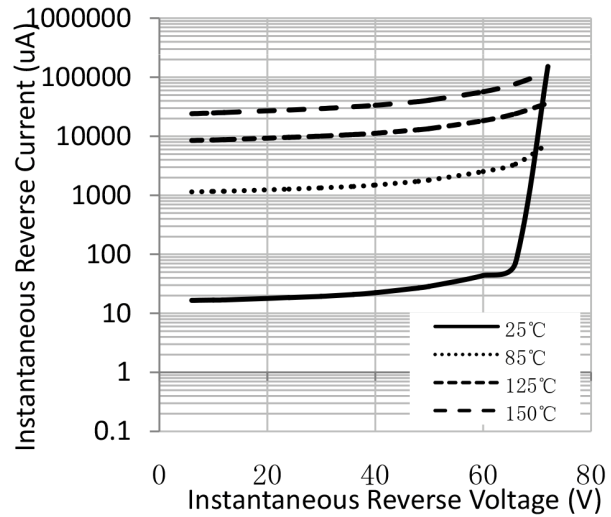


Figure 4. Typical Reverse Characteristics

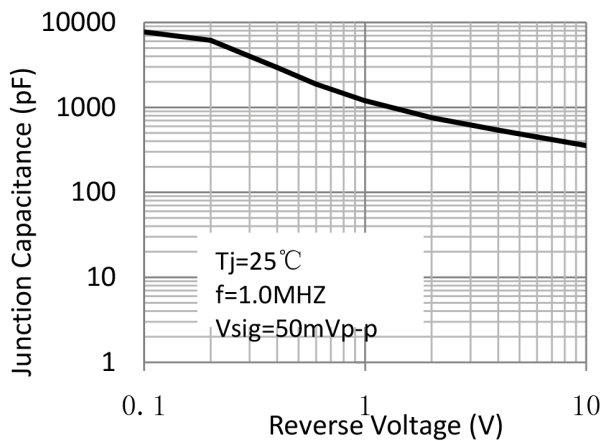
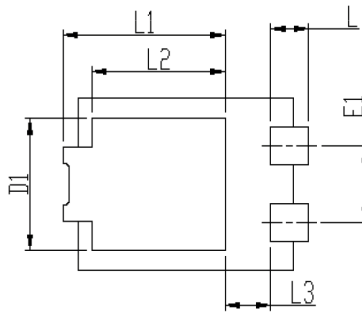
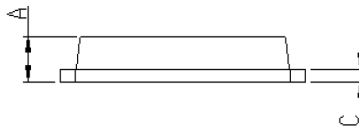
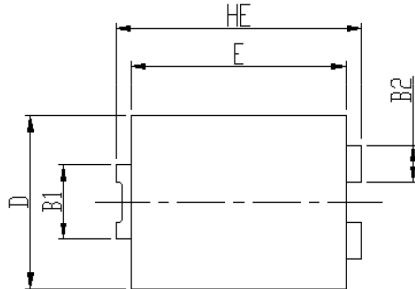


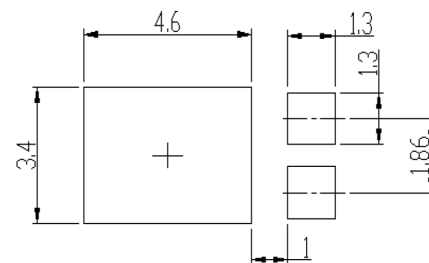
Figure 5. Typical Junction Capacitance

Package Outline Dimensions



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	####
E	5.6	5.8	0.220	####
D	4.1	4.3	0.161	####
B1	1.7	1.9	0.067	####
B2	0.8	1	0.031	####
A	1.05	1.2	0.041	####
C	0.3	0.4	0.012	####
L	0.85	1.1	0.033	####
L1	4.2	4.4	0.165	####
L2	3.52 Typ.		0.139 Typ.	
L3	1.1	1.4	0.043	####
D1	3	3.3	0.118	####
E1	1.86 Typ.		0.073 Typ.	

Soldering footprint



Packing Information

Packing quantities:

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

Tape & Reel Specification

