GOOD-ARK
SEMICONDUCTOR

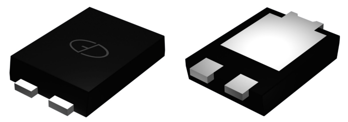
GSGC0560S

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

Features

- Low profile - typical height 1.1 mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition

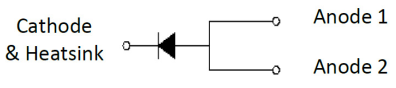
RoHS COMPLIANT



Package:
eSGC (TO-277)

Applications

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



Schematic Diagram

Maximum Ratings (T$_A$ = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	V
Maximum RMS Voltage	V_{RMS}	42	V
Maximum DC Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$1)	5.0	A
	$I_{F(AV)}$2)	3.0	
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	I_{FSM}	175	A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics (T$_A$ = 25°C unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage	I_F=1A	T_A=25℃	V_F	0.40	-	V
	I_F=2A			0.44	-	
	I_F=5A			0.52	0.65	
	I_F=1A	T_A=75℃		0.35	-	
	I_F=2A			0.40	-	
	I_F=5A			0.50	-	
	I_F=1A	T_A=125℃		0.28	-	
	I_F=2A			0.35	-	
	I_F=5A			0.47	0.6	
Maximum DC Reverse Current at Rated DC Blocking Voltage	Rated V_R	T_A=25℃	I_R	0.04	0.2	mA
		T_A=75℃		0.6	3	
		T_A=125℃		8.7	30	
Junction Capacitance	4.0 V, 1 MHz		C_J	220		pF
Typical Thermal Resistance	Juntion to Lead		$R_{\theta JL}$	15		℃/W

Notes 1) Mounted on Aluminum Substrate PCB
2) Mounted on recommended copper pad area,free air.

Ratings and Characteristics Curves (T_A = 25° C unlessotherwise noted)

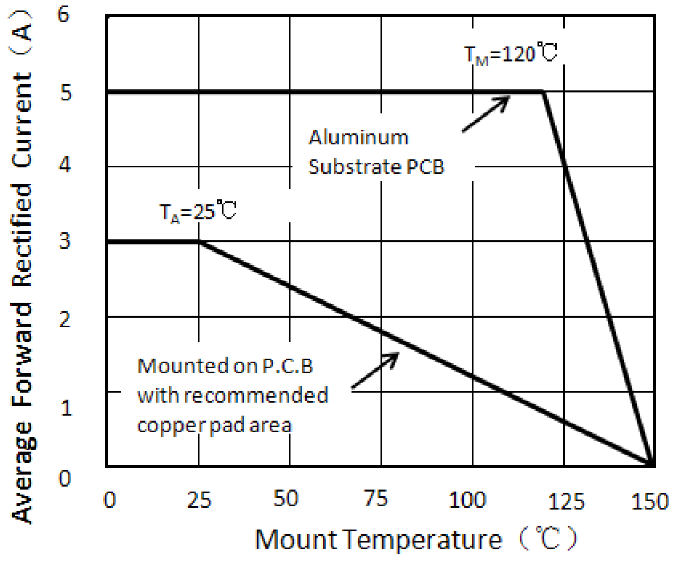


Figure 1.Forward Current Derating Curve

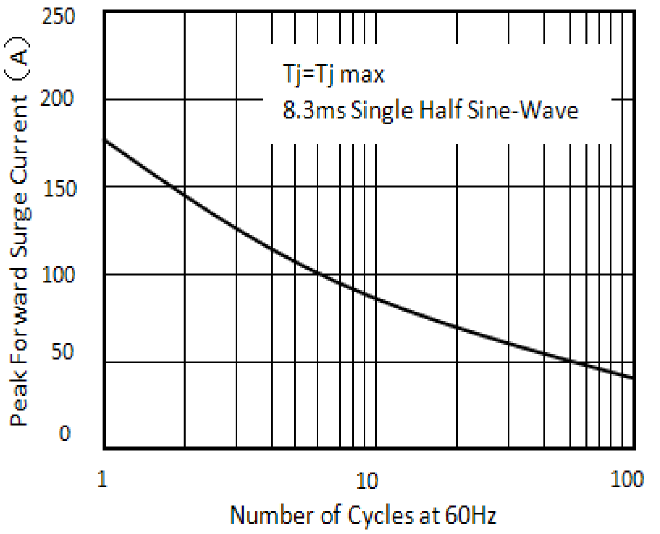


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

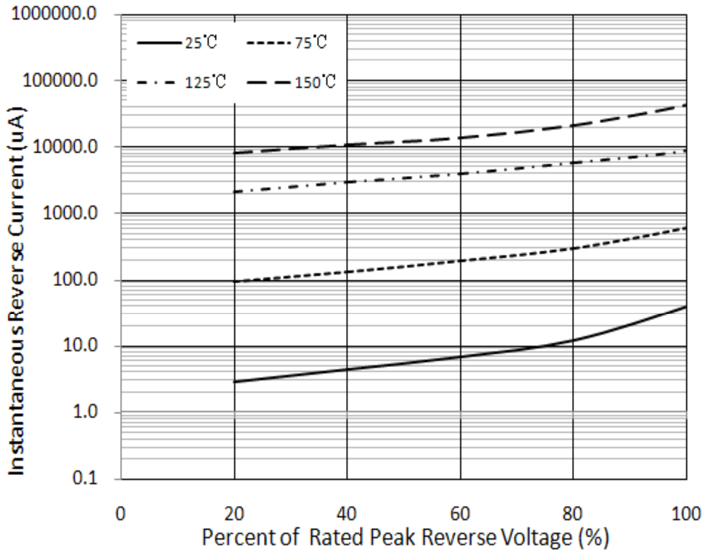


Figure 3. Typical Reverse Characteristics

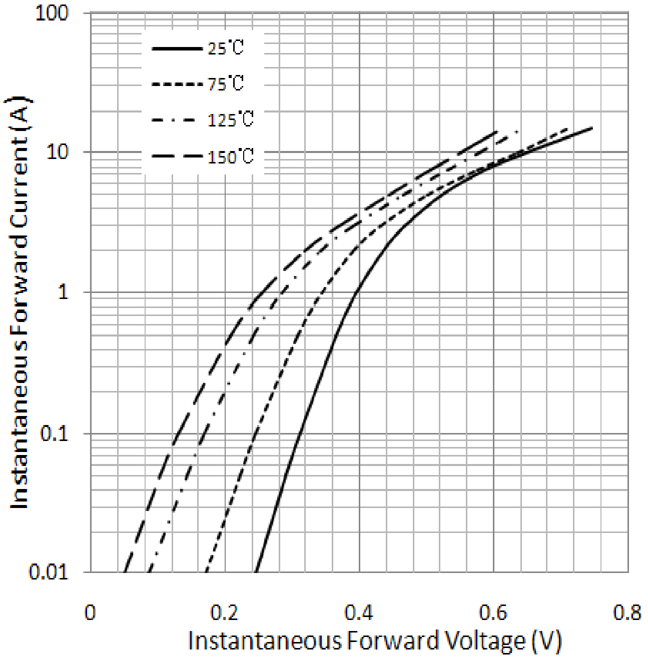
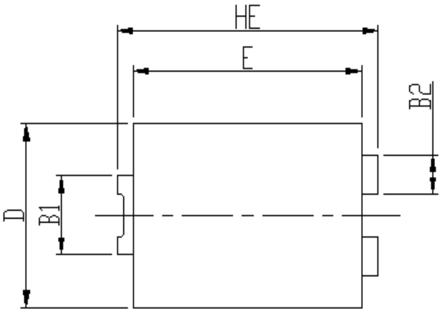
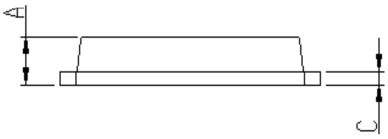


Figure 4. Typical Instantaneous Forward Characteristics

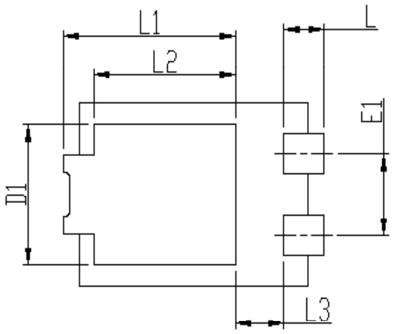
Package Outline Dimensions

eSGC (TO-277)

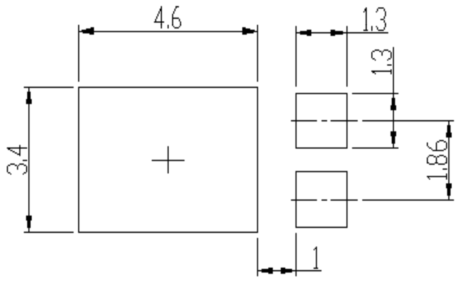




DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	0.260
E	5.6	5.8	0.220	0.228
D	4.1	4.3	0.161	0.169
B1	1.7	1.9	0.067	0.075
B2	0.8	1	0.031	0.039
A	1.05	1.2	0.041	0.047
C	0.3	0.4	0.012	0.016
L	0.85	1.1	0.033	0.043
L1	4.2	4.4	0.165	0.173
L2	3.52 Typ.		0.139 Typ.	
L3	1.1	1.4	0.043	0.055
D1	3	3.3	0.118	0.130
E1	1.86 Typ.		0.073 Typ.	



Soldering footprint



Packing Information

Packing quantities

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

Tape & Reel Specification