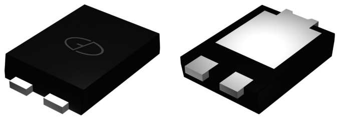
GOOD-ARK
SEMICONDUCTOR

GSGC2550S/GSGC2560S

Surface Mount Schottky Rectifier
Reverse Voltage 50-60V Forward Current 25A

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

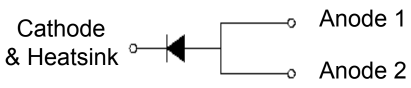


Package:
eSGC (TO-277)

RoHS COMPLIANT

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	GSGC2550S	GSGC2560S	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	60	V
Maximum RMS Voltage	V_{RMS}	35	42	V
Maximum DC Blocking Voltage	V_{DC}	50	60	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	25.0		A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	350		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
Instantaneous Forward Voltage	I_F=1A	T_A=25℃	V_F	0.29	-	V
	I_F=3A			0.33	-	
	I_F=5A			0.35	0.40	
	I_F=10A			0.39	-	
	I_F=25A			0.48	0.60	
	I_F=1A	T_A=125℃		0.15	-	
	I_F=3A			0.20	0.25	
	I_F=5A			0.24	0.30	
	I_F=10A			0.30	-	
	I_F=25A			0.45	0.50	
Reverse Current	Rated V_R	T_A=25℃	I_R	0.085	0.5	mA
		T_A=100℃		18	100	
Power Dissipation	FR-4, copper pad area 30x30mm, DC source		Pd	6.0		W
Typical Junction Capacitance	4.0 V, 1 MHz		C_J	2.0		nF
Typical Thermal Resistance[1)]	Juntion to Ambient		$R_{\theta JA}$	30		℃/W
	Juntion to Mount		$R_{\theta JM}$	1		

Note1) Thermal resistance of junction to ambient or mount, mounted on Al P.C.B with recommended copper pad area

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

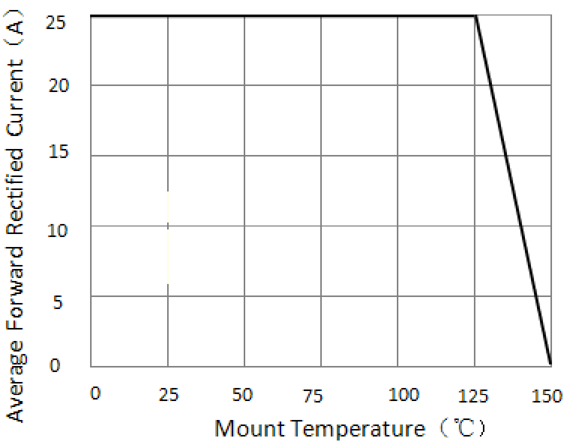


Figure 1.Forward Current Derating Curve

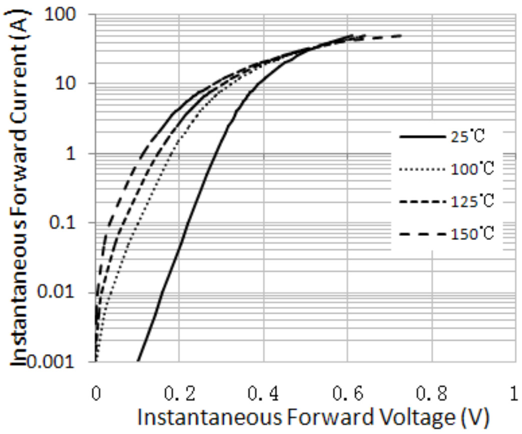


Figure 2. Typical Instantaneous Forward Characteristics

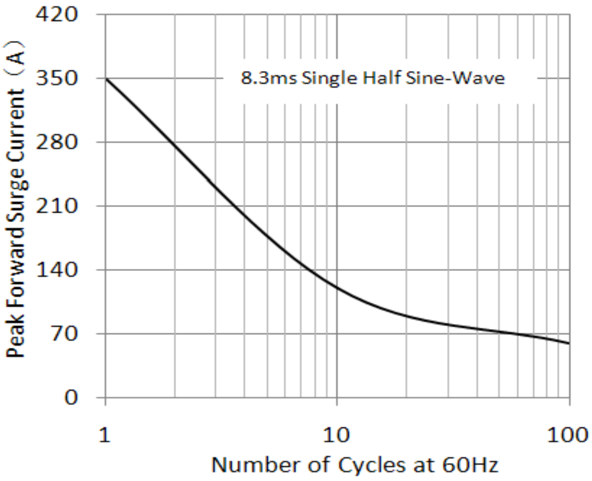


Figure 3.Maximum Non-Repetitive Peak Forward Surge Current

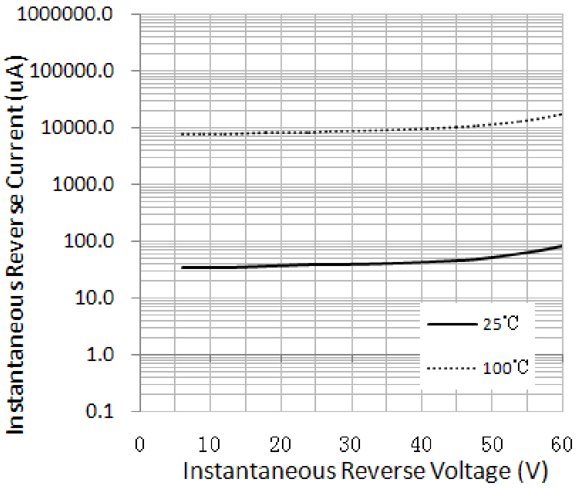


Figure 4. Typical Reverse Characteristics

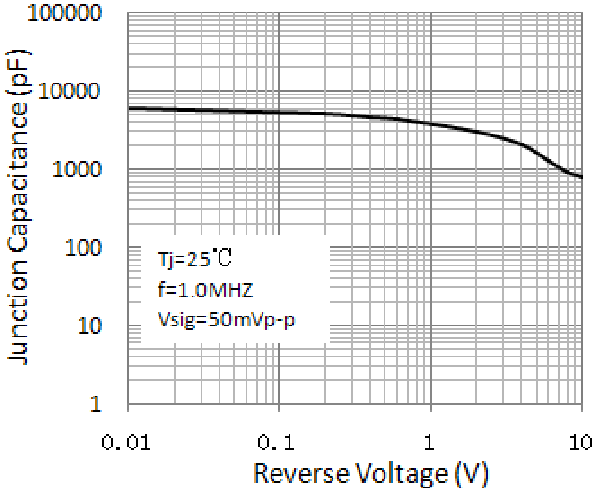


Figure 5. Typical Junction Capacitance

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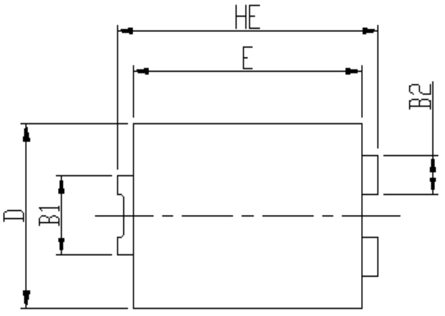
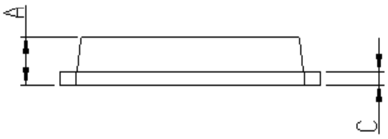
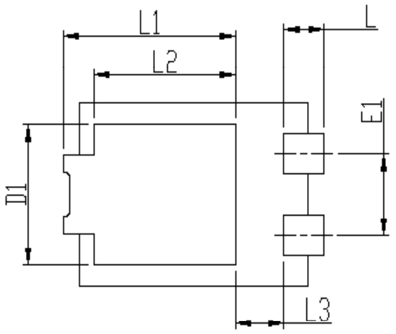
Package Outline Dimensions

eSGC (TO-277)

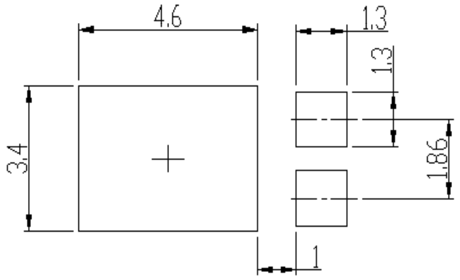






DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	0.260
E	5.6	5.8	0.220	0.228
D	4.1	4.3	0.161	0.169
B1	1.7	1.9	0.067	0.075
B2	0.8	1	0.031	0.039
A	1.05	1.2	0.041	0.047
C	0.3	0.4	0.012	0.016
L	0.85	1.1	0.033	0.043
L1	4.2	4.4	0.165	0.173
L2	3.52 Typ.		0.139 Typ.	
L3	1.1	1.4	0.043	0.055
D1	3	3.3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