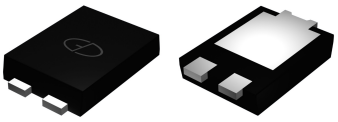
GOOD-ARK SEMICONDUCTOR

GSGC1060S

Surface Mount Schottky Rectifier
Reverse Voltage 60V Forward Current 10A

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

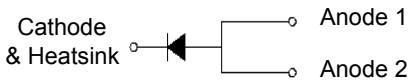


Package:
eSGC (TO-277)

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	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	$I_{F(AV)}$	10	A
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	I_{FSM}	280	A
Operating Junction and StorageTemperature Range	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics (T_A = 25℃ unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage	I_F=1A	T_A=25℃	V_F	0.30	0.35	V
	I_F=2A			0.33	0.38	
	I_F=10A			0.45	0.5	
	I_F=1A	T_A=85℃		0.22	0.27	
	I_F=2A			0.25	0.3	
	I_F=10A			0.44	0.48	
	I_F=1A	T_A=125℃		0.16	0.20	
	I_F=2A			0.20	0.24	
	I_F=10A			0.43	0.46	
Maximum DC Reverse Current at Rated DC Blocking Voltage	Rated V_R	T_A=25℃	I_R	0.18	0.3	mA
		T_A=85℃		14	18	
		T_A=100℃		35	39	
Junction Capacitance	4.0 V, 1 MHz		C_J	950		pF
Typical Thermal Resistance	Juntion to Lead		$R_{\theta JL}$	60		℃/W

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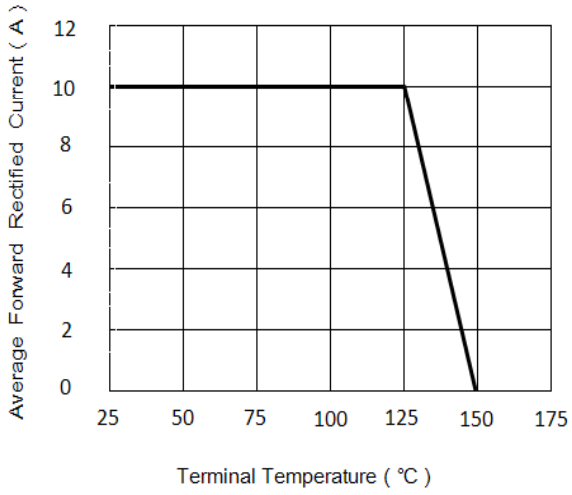
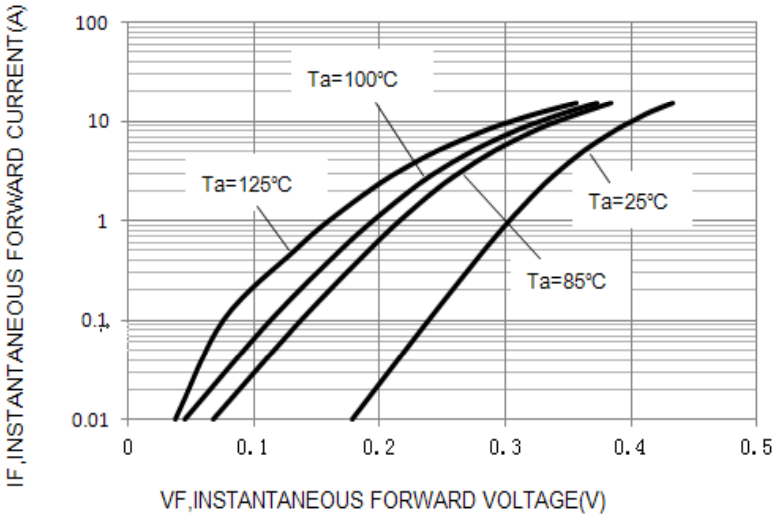
Ratings and Characteristics Curves (T_A = 25° C unlessotherwise noted)

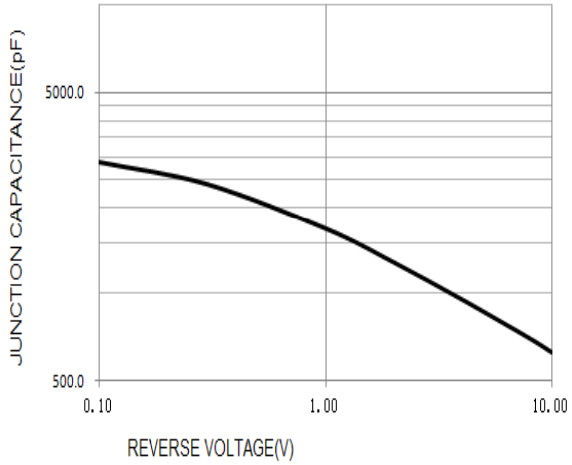
Forward Current Derating Curve



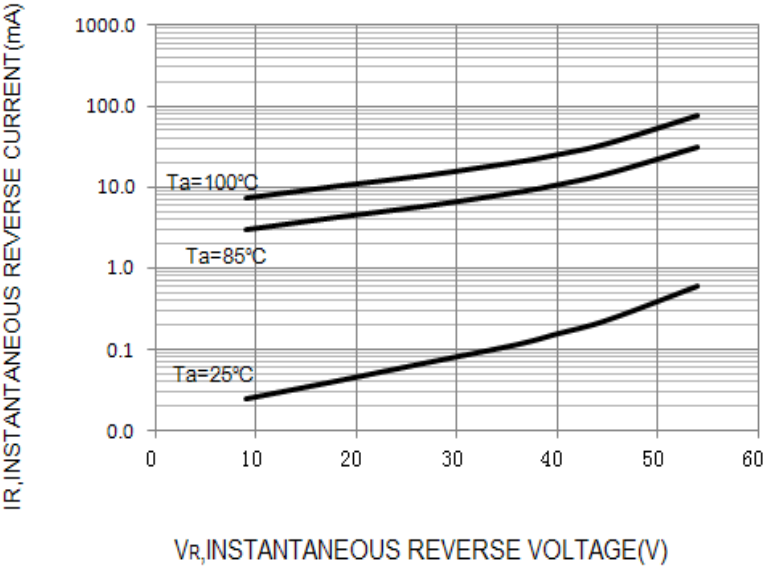
Typical Instantaneous Forward Characteristics



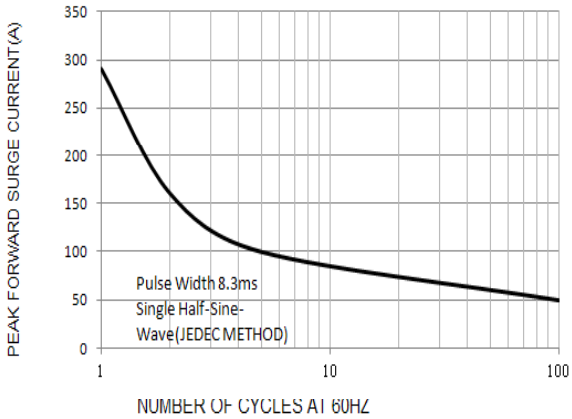
TYPICAL JUNCTION CAPACITANCE



Typical Reverse Characteristics



MAXIMUM NON-REPETITIVE SURGE CURRENT



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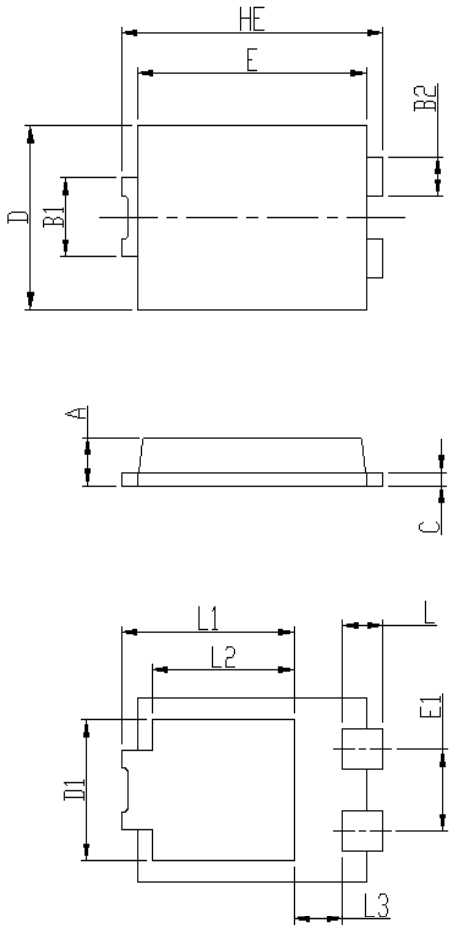
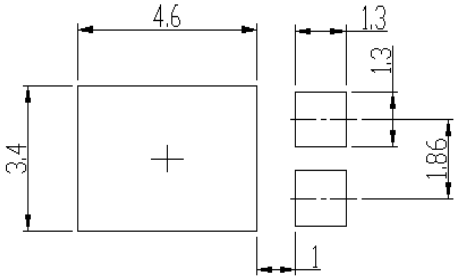
Package Outline Dimensions

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

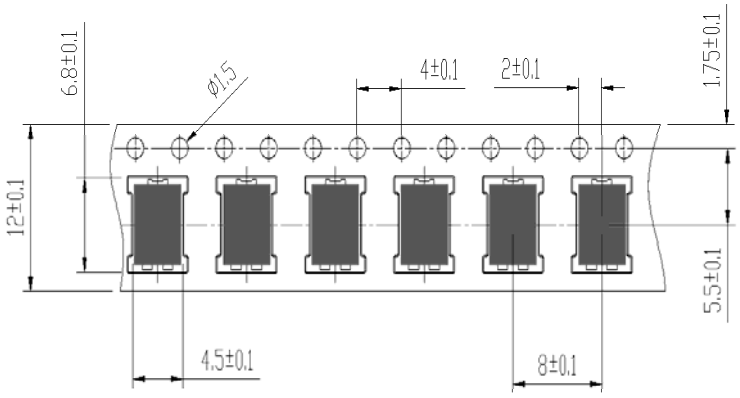


Packing Information

Packing quantities

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

Tape & Reel Specification



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