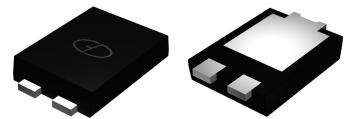
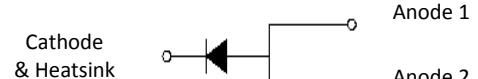


Features

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



Package:
eSGC (TO-277)



Schematic Diagram

Applications

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

Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}^1)$	8.0	A
	$I_{F(AV)}^2)$	15.0	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	250	A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous Forward Voltage	$I_F=2\text{A}$	$T_A=25^\circ\text{C}$	V_F	0.39	0.42	Volts
	$I_F=5\text{A}$			0.44	0.47	
	$I_F=10\text{A}$			0.51	-	
	$I_F=15\text{A}$			0.57	0.65	
	$I_F=5\text{A}$	$T_A=125^\circ\text{C}$		0.35	-	
	$I_F=15\text{A}$			0.52	0.6	
Reverse Current	$V_R=100\text{V}$	$T_A=25^\circ\text{C}$	I_R	29	100	uA
		$T_A=125^\circ\text{C}$		26	50	mA
Typical Junction Capacitance	4.0 V, 1 MHz		C_J	1.78		nF
Typical Thermal Resistance	Junction to Ambient		$R_{\theta JA}^1)$	35		°C/W
	Junction to Lead		$R_{\theta JL}^2)$	3.5		°C/W

Notes,1)Thermal resistance $R_{\theta JA}$ is junction to lead,mounted on P.C.B with 30*30mm copper pad area

2)Thermal resistance $R_{\theta JM}$ is junction to lead,mounted on aluminum substrate P.C.B

Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

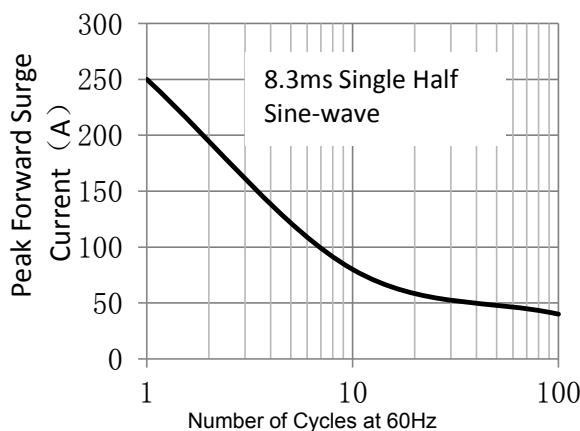


Figure 1. Maximum Non-Repetitive Peak Forward Surge Current

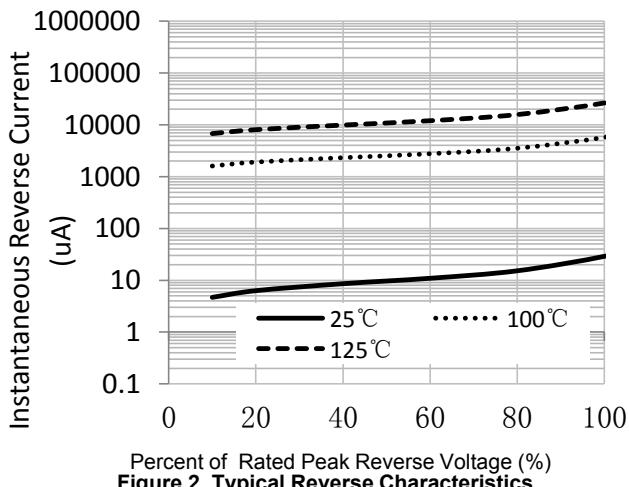


Figure 2. Typical Reverse Characteristics

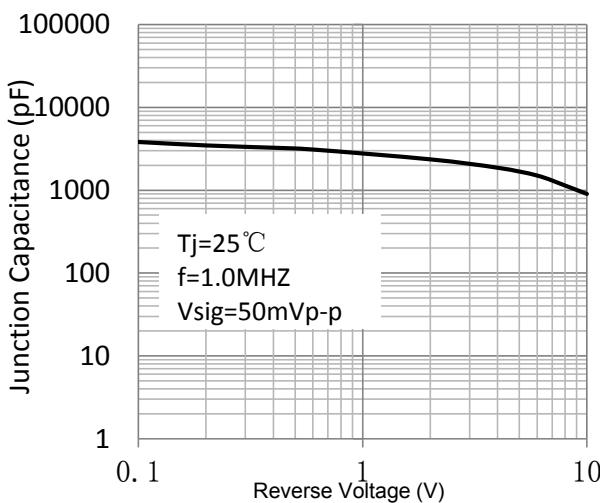


Figure 3. Typical Junction Capacitance

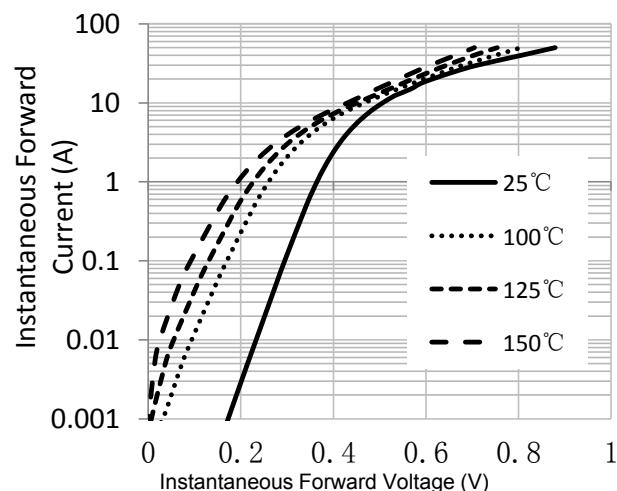


Figure 4. Typical Instantaneous Forward Characteristics

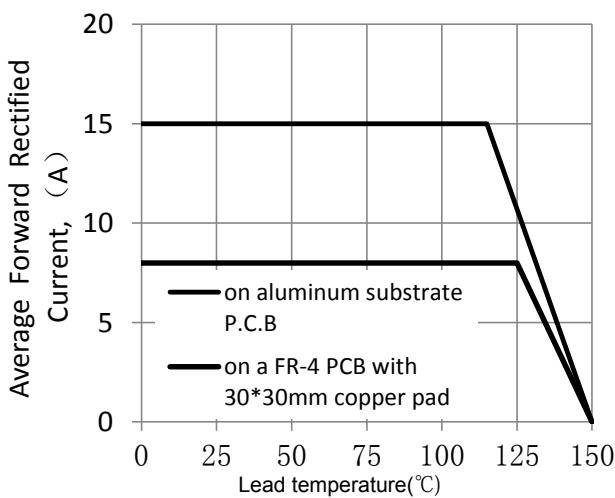
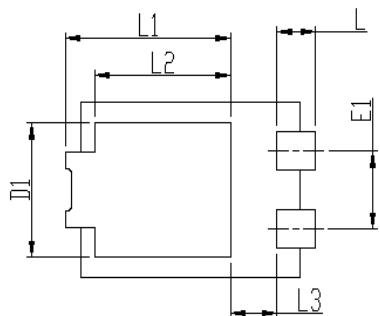
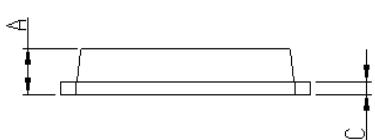
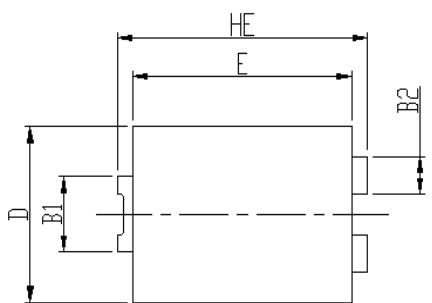


Figure 5. Forward Current Derating Curve

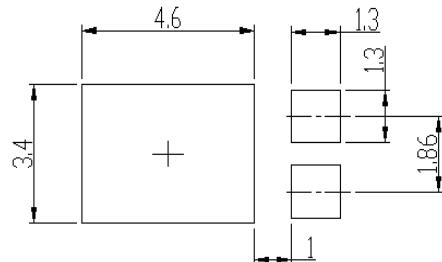
Package Outline Dimensions

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

