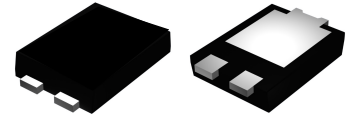
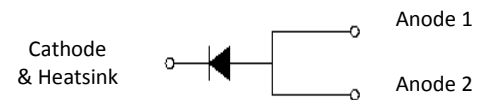


Features

- 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°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	80	V
Maximum RMS Voltage	V _{RMS}	56	V
Maximum DC Blocking Voltage	V _{DC}	80	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°C unless otherwise noted)

Parameter	Test Conditions	Symbol	Typ.	Max.	Unit	
Instantaneous Forward Voltage	I _F =2A I _F =5A I _F =10A I _F =15A	T _A =25°C	V _F	0.39	0.42	V
				0.44	0.47	
				0.51	-	
				0.57	0.65	
	I _F =5A I _F =15A	T _A =125°C	0.35	-		
			0.52	0.6		
Reverse Current	V _R =100V	T _A =25°C	29	100	µA	
		T _A =125°C	26	50	mA	
Typical Junction Capacitance	4.0 V, 1 MHz	C _J	1.78		nF	
Typical Thermal Resistance	Junction to Ambient	R _{θJA} ¹⁾	35		°C/W	
	Junction to Lead	R _{θJL} ²⁾	3.5		°C/W	

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

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

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

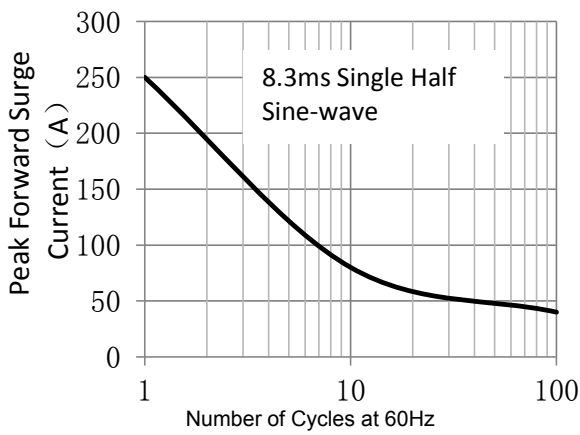


Figure 1. Maximum Non-Repetitive Peak Forward Surge Current

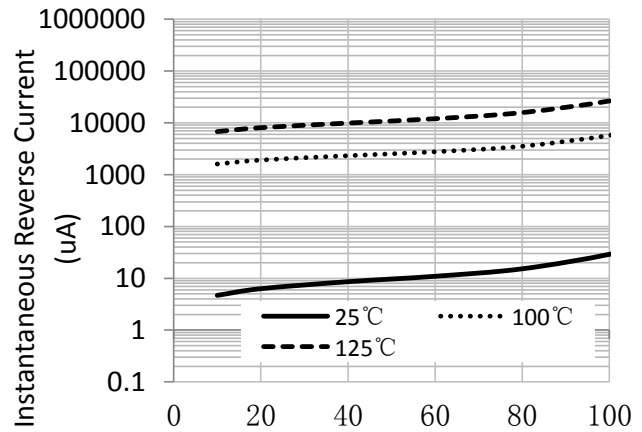


Figure 2. Typical Reverse Characteristics

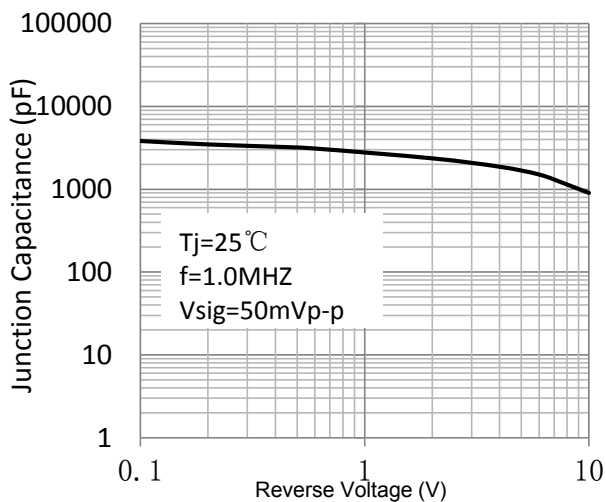


Figure 3. Typical Junction Capacitance

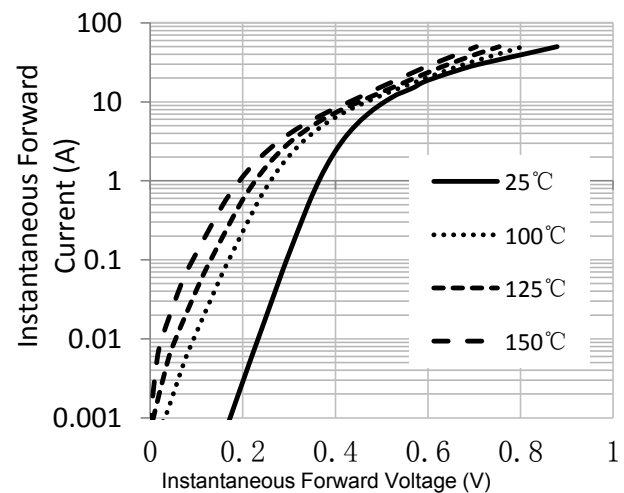


Figure 4. Typical Instantaneous Forward Characteristics

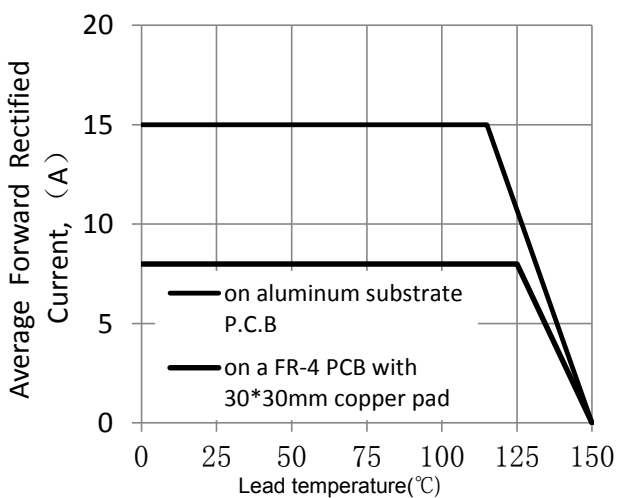
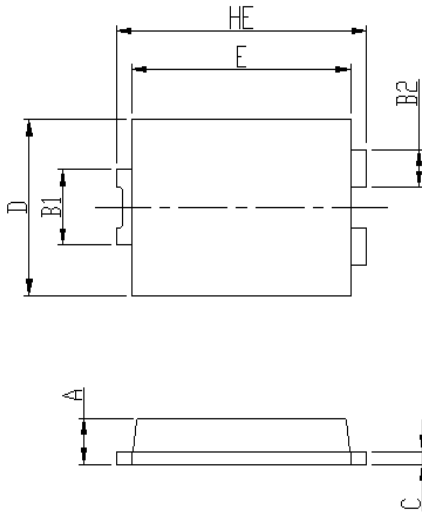


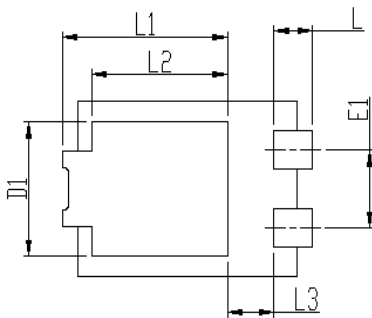
Figure 5. Forward Current Derating Curve

Package Outline Dimensions

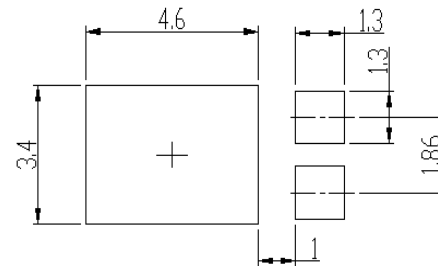
eSGC (TO-277)



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

