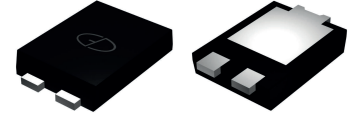


Features

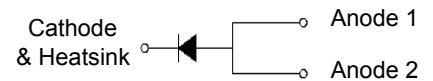
- Low profile - typical height 1.1 mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



Package:
eSGC (TO-277)

Applications

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



Schematic Diagram

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

Parameter	Symbol	GSGCP2550L	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	V
Maximum RMS Voltage	V_{RMS}	35	V
Maximum DC Blocking Voltage	V_{DC}	50	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	25	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	$^\circ\text{C}$

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

Parameter	Test Conditions	Symbol	Typ	Max	Unit			
Instantaneous Forward Voltage	$I_F=3\text{A}$	V_F			V			
						$T_A=25^\circ\text{C}$	-	
							$I_F=10\text{A}$	-
								0.39
	$I_F=15\text{A}$						0.42	
						0.47		
	$T_A=125^\circ\text{C}$					0.48		
						0.55		
0.27								
-								
						$I_F=10\text{A}$	0.33	
							-	
						$I_F=15\text{A}$	0.36	
0.40								
						$I_F=25\text{A}$	0.41	
							0.47	
0.085	0.3							
Reverse Current	Rated V_R	I_R			mA			
						$T_A=100^\circ\text{C}$	20	100
Power Dissipation	FR-4, copper pad area 30x30mm, DC source	P_d	6.0		W			
Typical Thermal Resistance ¹	Junction to Ambient	$R_{\theta JA}$	30		$^\circ\text{C}/\text{W}$			
	Junction to Mount	$R_{\theta JM}$	1					

Note 1. Thermal resistance of junction to ambient or mount, mounted on Al PCB with recommended copper pad area

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

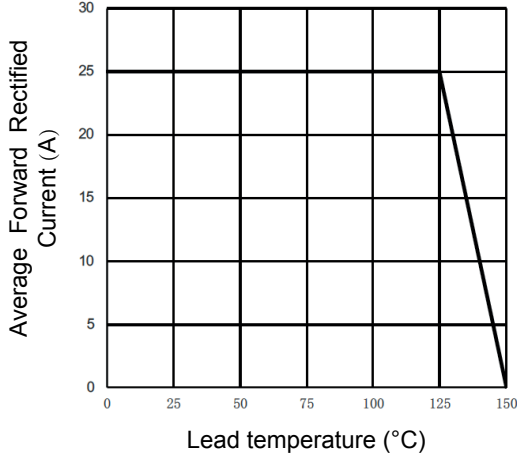


Figure 1. Forward Current Derating Curve

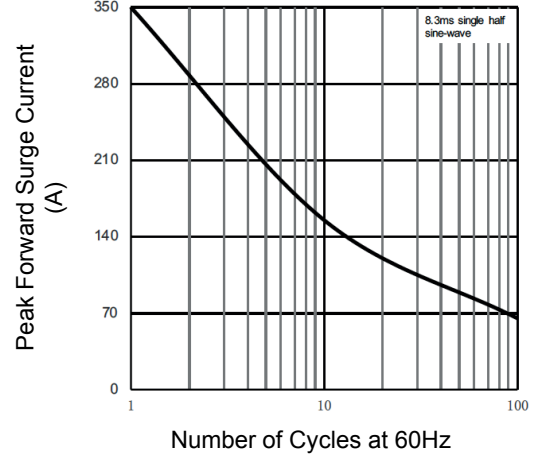


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

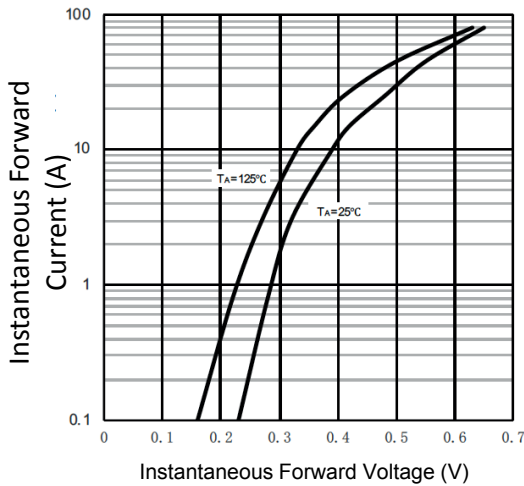


Figure 4. Typical Instantaneous Forward Characteristics

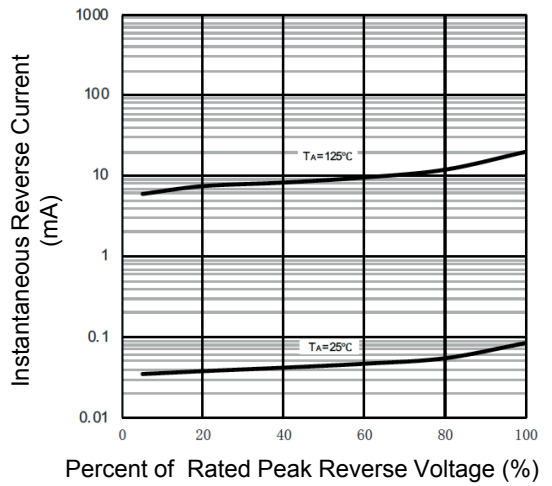
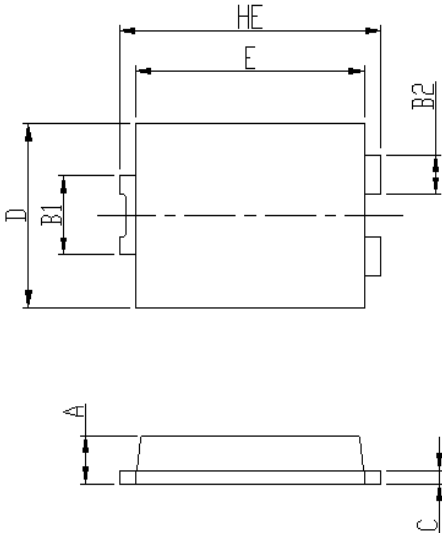
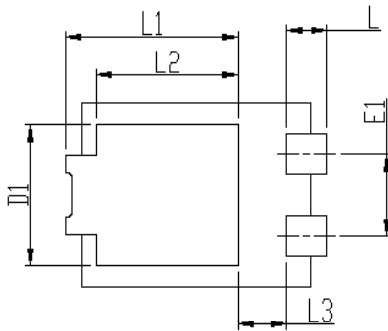


Figure 4. Typical Reverse Characteristics

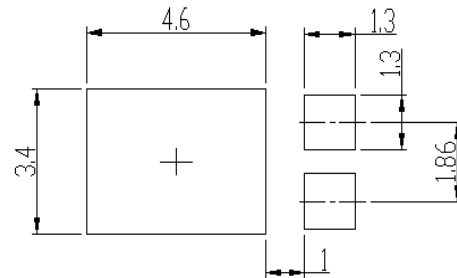
Package Outline Dimensions eSGC (TO-277)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
HE	6.40	6.60	0.252	0.260
E	5.60	5.80	0.220	0.228
D	4.10	4.30	0.161	0.169
B1	1.70	1.90	0.067	0.075
B2	0.80	1.00	0.031	0.039
A	1.05	1.20	0.041	0.047
C	0.30	0.40	0.012	0.016
L	0.85	1.10	0.033	0.043
L1	4.20	4.40	0.165	0.173
L2	3.52 Typ.		0.139 Typ.	
L3	1.10	1.40	0.043	0.055
D1	3.00	3.30	0.118	0.130
E1	1.86 Typ.		0.073 Typ.	



Soldering footprint



Packing Information

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

Tape Specification

