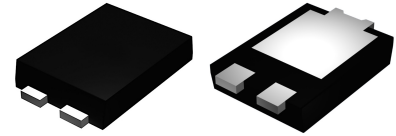
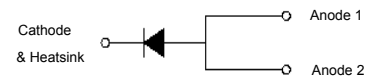


Features

- Excellent high temperature stability
- Low forward voltage
- Low power loss/high efficiency
- High forward surge capability
- Ideal for automated placement
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



TO-277



Schematic Diagram

Mechanical Data

- Case: TO-277 package
 Molding compound meets UL 94V-0 flammability rating
 Moisture sensitivity level: level 1, per J-STD-020
- Terminals: Matte tin plated leads, solderable per JESD22-B102
 Meet JESD 201 class 2 whisker test

Absolute Maximum Ratings and Electrical Characteristics

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

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	15	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	300	A
Maximum Instantaneous Forward Voltage ¹	V_F	0.54	V
Maximum Instantaneous Reverse Current at Rated Reverse Voltage	I_R	300	μA
Typical Thermal Resistance, Junction to Lead	$R_{\theta JL}$	7	$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Note:

1. Pulse test with pulse width=300 μs , 1% duty cycle

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

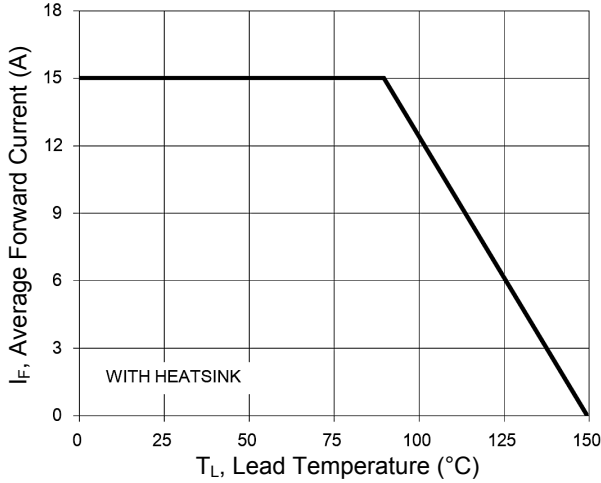


Figure 1. Forward Current Derating Curve

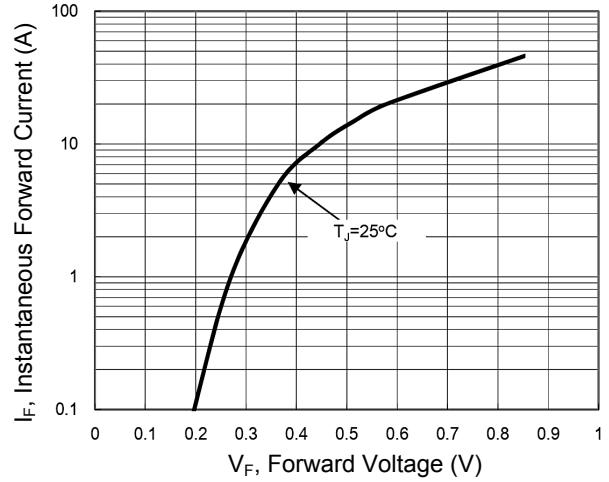


Figure 2. Typical Forward Characteristics

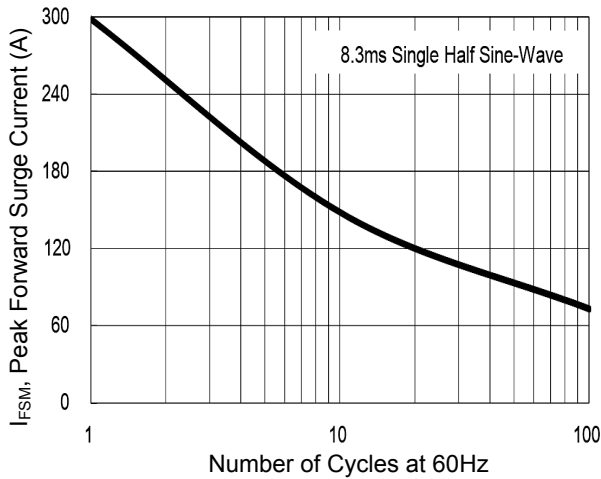


Figure 3. Maximum Non-Repetitive Forward Surge Current

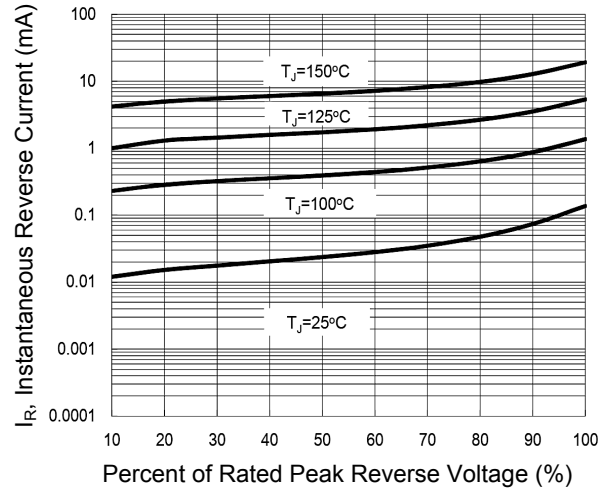
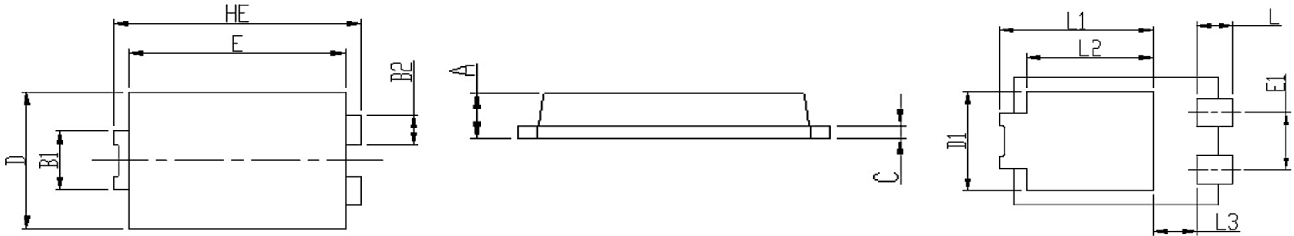


Figure 4. Typical Reverse Characteristics

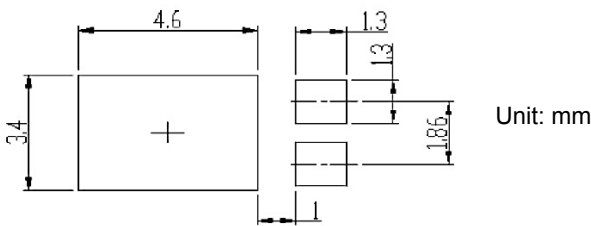


Package Outline Dimensions (TO-277)



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	0.25	0.40	0.010	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	

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSP1550L	TO-277	SP1550L	Tape & Reel	5,000 Pcs / Reel