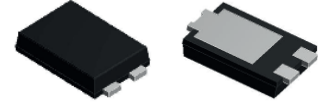


Features

- 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

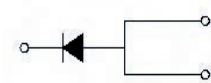


TO-277

Mechanical Data

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

Cathode
& Heatsink



Anode 1

Anode 2

Schematic Diagram

Applications

Trench Schottky barrier rectifier is designed for high frequency miniature switched mode power supplies such as adapters, lighting and on-board DC/DC converters.

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	100	V
Maximum Average Forward Rectified Current	I _{F(AV)}	12	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load Per Diode	I _{FSM}	250	A
Typical Thermal Resistance	R _{θJL}	11	°C/W
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Typ	Max	Unit
Instantaneous Forward Voltage ¹	V _F	I _F =5A, T _J =25°C	0.47	-	V
		I _F =5A, T _J =125°C	-	0.5	V
		I _F =12A, T _J =25°C	-	0.65	V
Instantaneous Reverse Current at Rated Reverse Voltage	I _R	T _J =25°C	0.03	0.1	mA
		T _J =125°C	2	30	mA

Note:

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

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

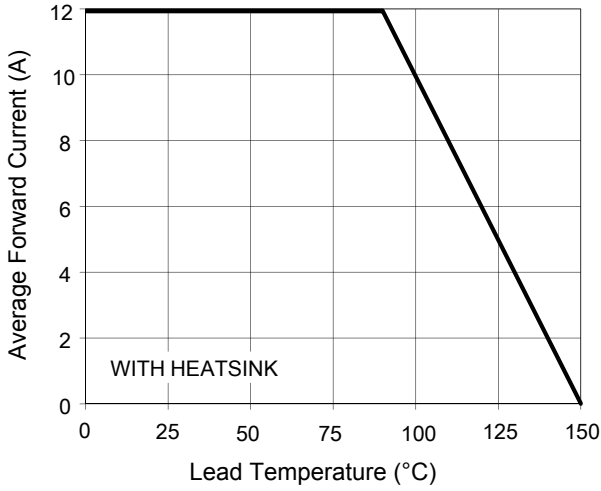


Figure 1. Forward Current Derating Curve

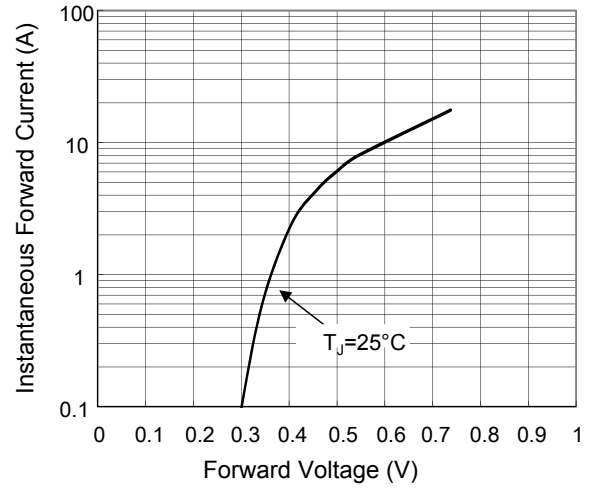


Figure 2. Typical Forward Characteristics

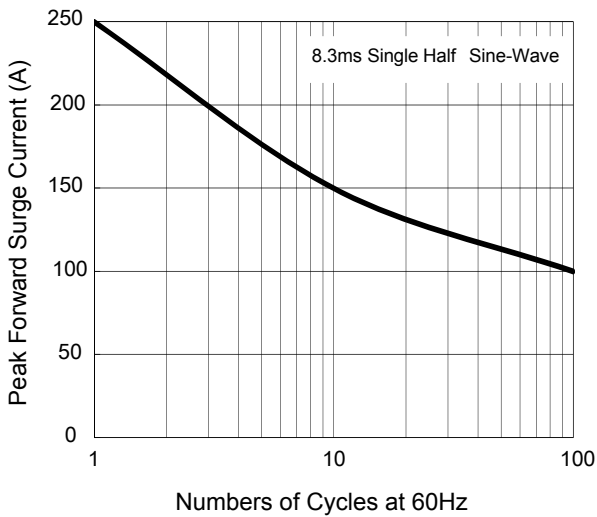


Figure 3. Maximum Non-Repetitive Forward Surge Current

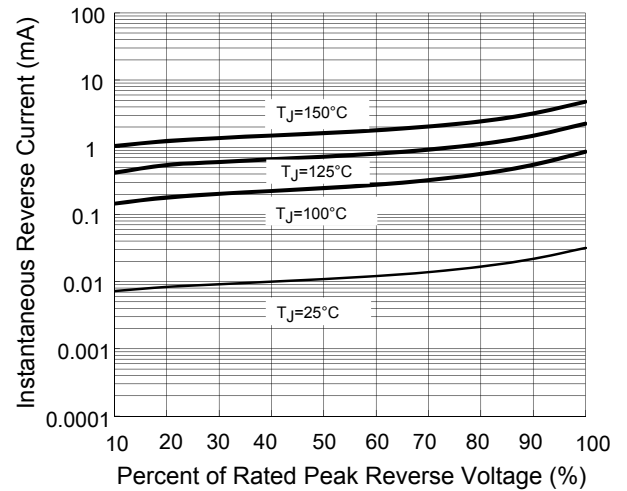
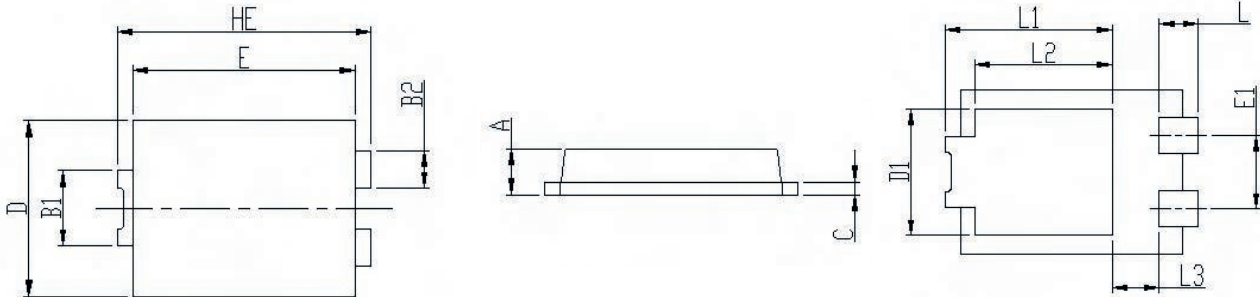


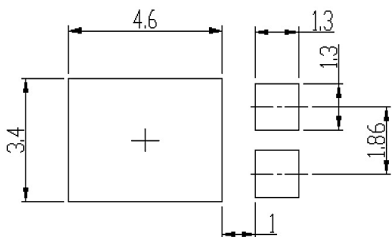
Figure 4. Typical Reverse Characteristics

Package Outline Dimensions (TO-277)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
HE	6.400	6.600	0.252	0.260
E	5.600	5.800	0.220	0.228
D	4.100	4.300	0.161	0.169
B1	1.700	1.900	0.067	0.075
B2	0.800	1.000	0.031	0.039
A	1.050	1.200	0.041	0.047
C	0.250	0.400	0.010	0.016
L	0.850	1.100	0.033	0.043
L1	4.200	4.400	0.165	0.173
L2	3.520 TYP		0.139 TYP	
L3	1.100	1.400	0.043	0.055
D1	3.000	3.300	0.118	0.130
E1	1.860 TYP		0.073 TYP	

Recommended Pad Layout



Unit: mm

Order Information

MPN	Package	Marking	Carrier	Quantity
GSP12100L	TO-277	12100L	Tape & Reel	5,000pcs / Reel