

GSDS10xxVF Series

10A Schottky Barrier Rectifiers

Product Description

It is a surface Mount Schottky Barrier Rectifier.

Features

- V_{RRM} 45V, 60V and 100V Options
- I_o 10A
- Low Forward Voltage

Mechanical Data

- TO-277-3L Package
- Solderable per MIL-STD-202, METHOD 208
- RoHS Compliant and Halogen Free

Packages & Pin Assignments

TO-277-3L		Equivalent Circuit	
Pin	Description	Pin	Description
1 & 2	Anode	3	Cathode

Ordering and Marking Information

Ordering Information			
Part Number	Marking Code	Package	Quantity/Reel
GSDS1045VF	SP1045L	TO-277-3L	5,000 PCS
GSDS1060VF	SP1060L		
GSDS10100VF	SP10100L		
Marking Information			
	Product Code: - SP10	Voltage Code: □□□ is 45, 60 or 100	

Maximum Ratings and Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.)

Symbol	Description	1045	1060	10100	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	45	60	100	V
V_{RMS}	Maximum RMS Voltage	31.5	42	70	V
V_{DC}	Maximum DC Blocking Voltage	45	60	100	V
$I_{(AV)}$	Maximum Average Forward Rectified Current	10			A
I_{FSM}	Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave Superimposed on rated Load (JEDEC Method)	150			A
V_F	Maximum Forward Voltage 10A	0.55	0.65	0.8	V
	8A ($T_J=125^\circ\text{C}$)	0.43	0.52	0.62	
I_R^1	Maximum Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$	0.1			mA
	$T_J=125^\circ\text{C}$	20			
$R_{\theta JC}$	Typical Thermal Resistance ¹	23			°C/W
T_J	Junction Temperature Range	-55 to 150			°C
T_{STG}	Storage Temperature Range	-65 to 175			°C

NOTE:

1. Pulse Test: 300µS Pulse Width, 1% Duty Cycle.

Typical Characteristics (Ratings at 25°C Ambient Temperature Unless Otherwise Specified.)

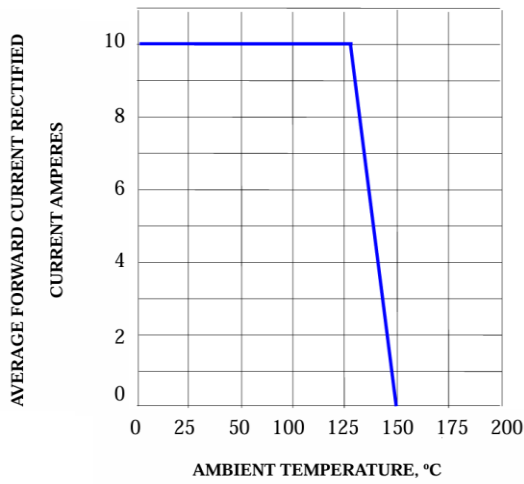


Figure 1. Derating Curve Output Rectified Current

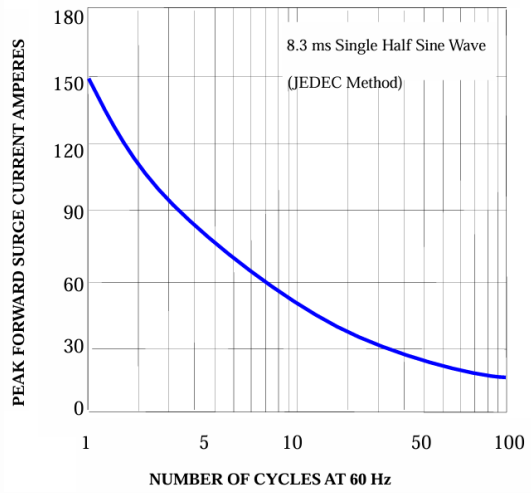


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

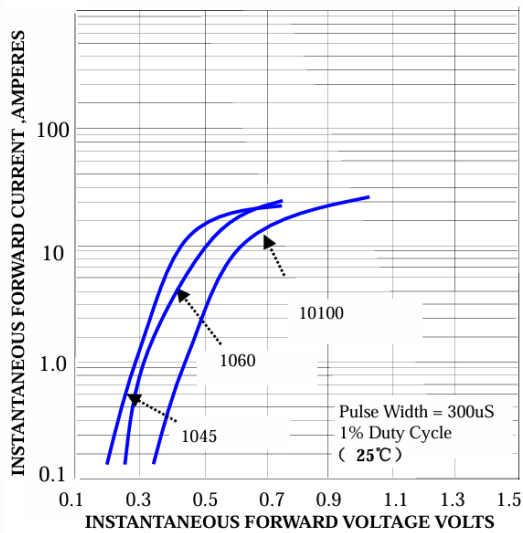


Figure 3. Typical Forward Voltage Characteristics

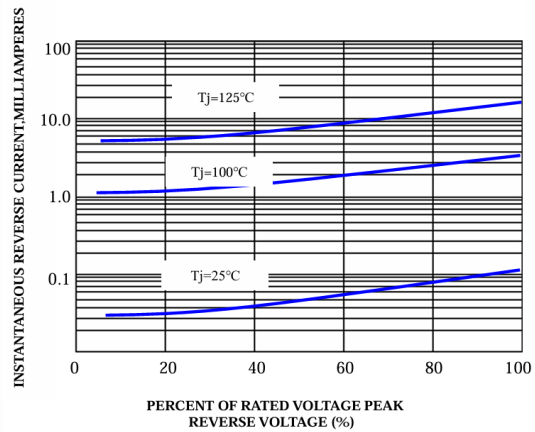
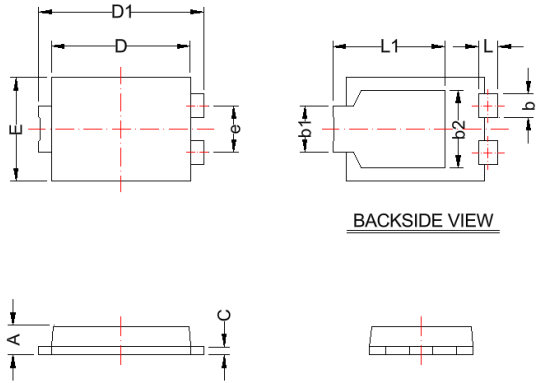


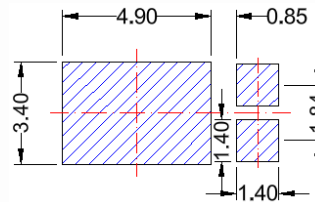
Figure 4. Typical Reverse Leakage Characteristics

TO-277-3L

Package Dimension



Recommended Land Pattern



Unit:mm

Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.00	1.20	0.039	0.047
C	0.28	0.40	0.011	0.016
b	0.80	1.05	0.031	0.041
b1	1.74	1.94	0.069	0.076
b2	3.05 TYP		0.120 TYP	
D	5.30	5.60	0.209	0.220
D1	6.40	6.60	0.252	0.260
E	3.90	4.20	0.154	0.165
e	1.84 TYP		0.072 TYP	
L	0.20	0.30	0.008	0.012
L1	4.40 TYP		0.173 TYP	





NOTE:



Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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