

GSDS1045VF

Schottky Diode

Product Description

Schottky Barrier Diode 45V and 10A



Features

- Low Forward Voltage

Mechanical Data

- TO-277-3L Package
- RoHS Compliant and Halogen Free

Package and Pin Assignment

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

Ordering and Marking Information

GS P/N	Package	Marking	Quantity / Reel
GSDS1045VF	TO-277-3L	 SL1045	5,000PCS
GSDS1045VF			
- Product Code: GSDS1045		- Package Code: V for TO-277-3L	- Green Level: F for RoHS Compliant and Halogen Free
Marking Information			
		- Product Code: SL1045 - Band denotes Cathode end	- GS Code: 

Absolute Maximum Ratings

$T_A=25^{\circ}\text{C}$ unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	45	V
V_{RMS}	Maximum RMS Voltage	31.5	V
V_{DC}	Maximum DC Blocking Voltage	45	V
$I_{F(AV)}$	Maximum Average Forward Rectified Current	10	A
I_{FSM}	Non-Repetitive Peak Forward Current (8.3ms Single Half Sin-Wave)	250	A
$R_{\theta JL}$	Typical Thermal Resistance from Junction to Lead	20	$^{\circ}\text{C}/\text{W}$
T_J	Junction Temperature	-55 to +150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$

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

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_F	Instantaneous Forward Voltage	$I_F=10\text{A}$			0.45	V
I_R	Reverse Current	$V_R=45\text{V}, T_A=25^{\circ}\text{C}$			0.3	mA
		$V_R=45\text{V}, T_A=125^{\circ}\text{C}$			100	

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

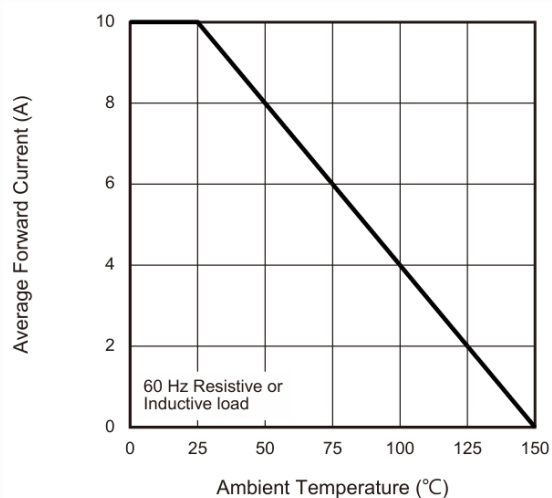


Fig.1 Forward Current Derating Curve

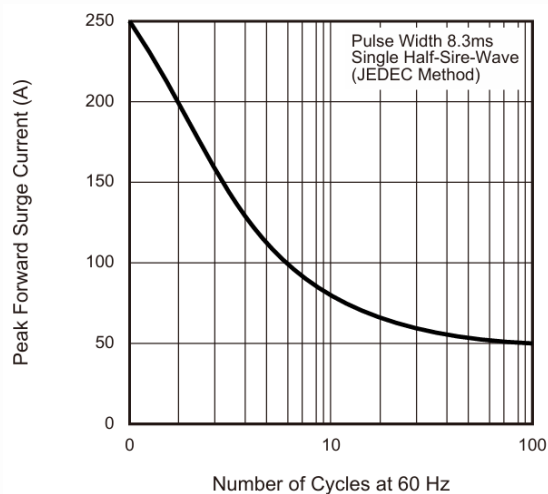


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

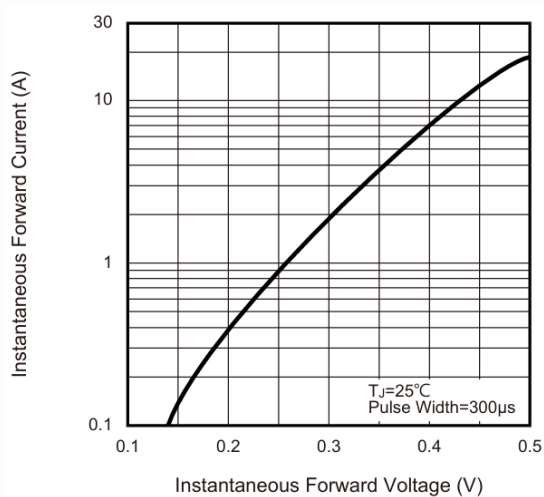


Fig.3 Instantaneous Forward Characteristics

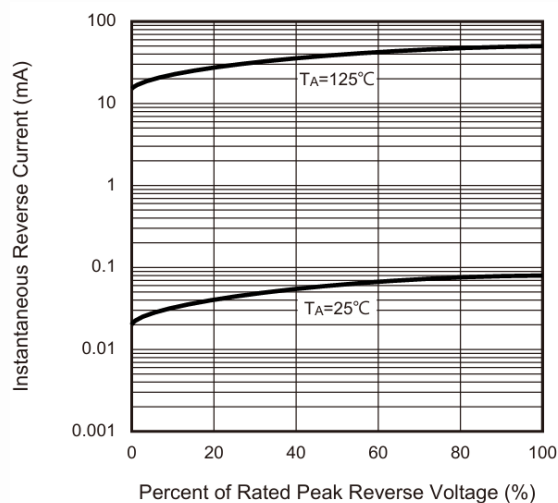
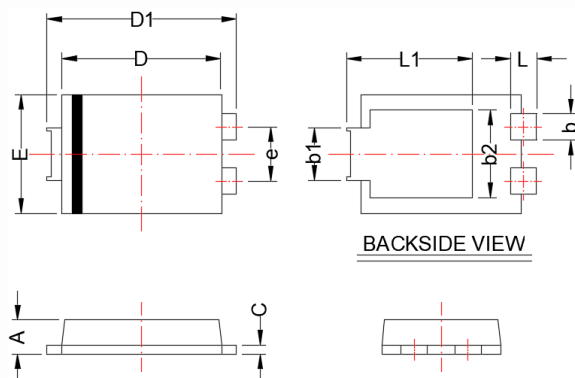


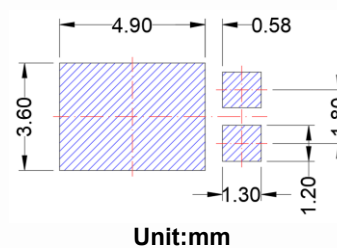
Fig.4 Reverse Leakage Characteristics

TO-277-3L

Package Dimension



Recommended Land Pattern



Unit:mm

Dimensions				
Symbol	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	0.95	1.40	1.18	0.037
C	0.18	0.45	0.32	0.007
b	0.75	1.05	0.90	0.030
b1	1.65	1.95	1.80	0.065
b2	2.70	3.30	3.00	0.106
D	5.10	5.85	5.48	0.201
D1	6.35	6.65	6.50	0.250
E	3.80	4.35	4.08	0.150
e	1.65	2.05	1.85	0.065
L	0.6	1.15	0.88	0.024
L1	4.05	4.60	4.33	0.159





NOTE:



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

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