

GSABS12K thru GSABS110K

Schottky Bridge Rectifiers
 Voltage Range 20V to 100V Forward Current 1A

Features

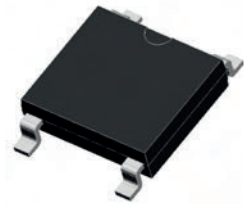
- Schottky chip
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Typical Applications

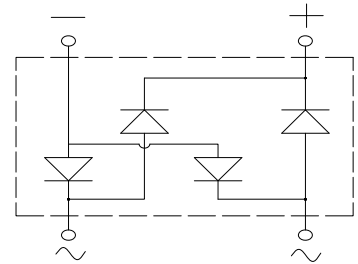
General purpose use in high frequency bridge full wave rectification for SMPS, lighting ballast, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

Mechanical Data

- Package: ABS
 Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: As marked on body



ABS



Schematic Diagram

Absolute Maximum Ratings (T_A=25°C Unless otherwise specified)

Parameter	Symbol	GS ABS12K	GS ABS14K	GS ABS16K	GS ABS18K	GS ABS110K	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	20	40	60	80	100	V
Average Rectified Output Current @ 60Hz Sine Wave, R-load, T _A (FIG.1)	I _O	1.0					A
Surge (Non-Repetitive) Forward Current @ 60Hz Half Sine Wave, 1 Cycle, T _J =25°C	I _{FSM}	30					A
Current Squared Time @ 1ms ≤ t ≤ 8.3ms T _J =25°C, Rating of Per Diode	i ² t	3.7					A ² s
Thermal Resistance Between Junction and Ambient, On Alumina Substrate	R _{θJ-A}	62.5					°C/W
Thermal Resistance Between Junction and Lead	R _{θJ-L}	25.0					°C/W
Storage Temperature	T _{STG}	-55 to +150					°C
Junction Temperature	T _J	-55 to +125		-55 to +150			°C

Electrical Characteristics (T_A=25°C Unless otherwise specified)

Parameter	Symbol	Test Conditions	GS ABS12K	GS ABS14K	GS ABS16K	GS ABS18K	GS ABS110K	Unit
Maximum Instantaneous Forward Voltage Drop Per Diode	V _F	I _{FM} =0.5A	0.50		0.70	0.85		V
Maximum DC Reverse Current at Rated DC Blocking Voltage Per Diode	I _{RRM}	T _A =25°C	500			100		uA
		T _A =100°C	10000			5000		

Typical Characteristics Curves

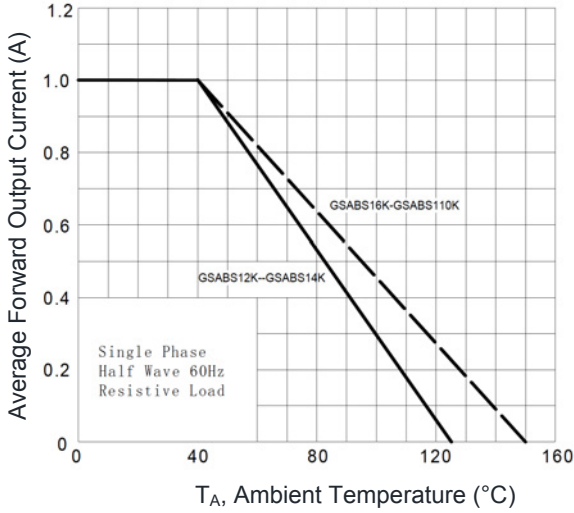


Figure 1. I_O - T_A Curve

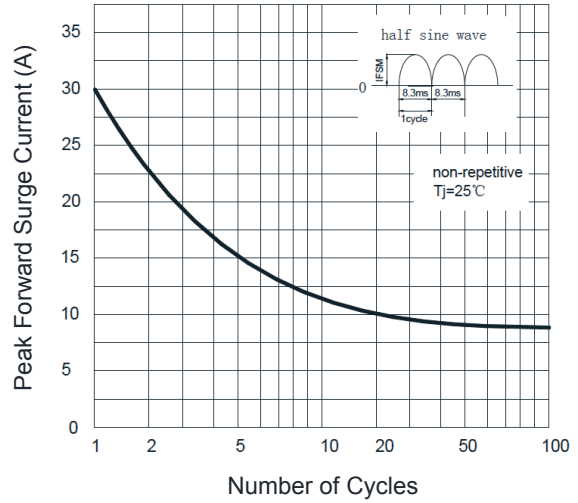


Figure 2. Surge Forward Current Capability

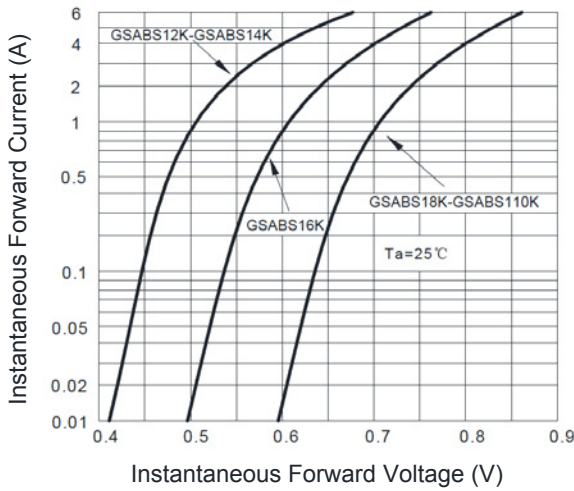


Figure 3. Forward Voltage

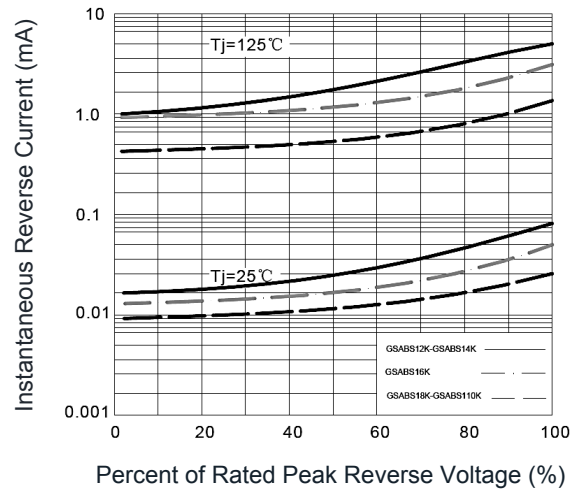
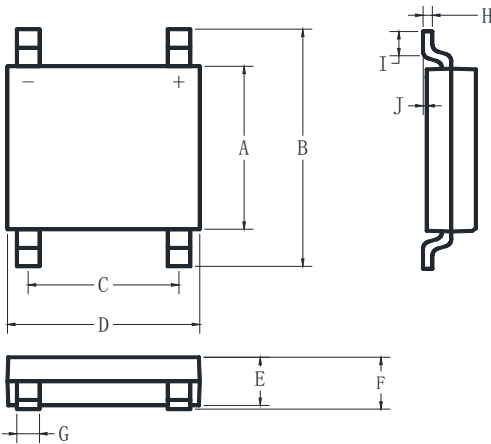


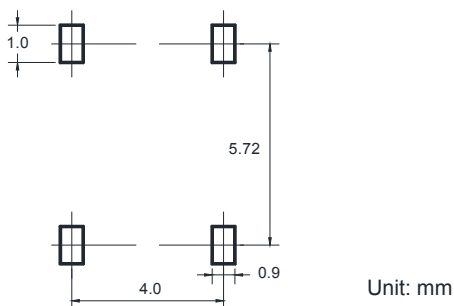
Figure 4. Typical Reverse Characteristics

Package Outline Dimensions (ABS)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.30	4.50	0.169	0.177
B	6.00	6.40	0.236	0.252
C	3.90	4.10	0.154	0.161
D	4.90	5.10	0.193	0.201
E	1.25	1.45	0.049	0.057
F	-	1.60	-	0.063
G	0.60	0.70	0.024	0.028
H	0.15	0.25	0.006	0.010
I	0.30	0.80	0.012	0.031
J	0.02	0.15	0.001	0.006

Recommended Pad layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSABS12K	ABS	ABSK12S	Tape & Reel	4,000pcs / Reel
GSABS14K	ABS	ABSK14S	Tape & Reel	4,000pcs / Reel
GSABS16K	ABS	ABSK16S	Tape & Reel	4,000pcs / Reel
GSABS18K	ABS	ABSK18S	Tape & Reel	4,000pcs / Reel
GSABS110K	ABS	ABSK110S	Tape & Reel	4,000pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com