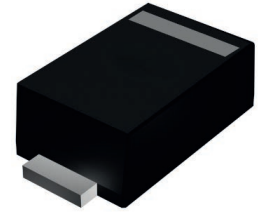


GS12FH thru GS120FH

Surface Mount Schottky Rectifiers
 Reverse Voltage 20V to 200V Forward Current 1A

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C



SOD-123FL

Mechanical Data

- Molding compound meets UL 94V-0 flammability rating
- Terminals: Tin plated leads, solderable per J-STD-002
- Polarity: Cathode line denotes the cathode end

Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

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

Parameter	Symbol	GS 12FH	GS 13FH	GS 14FH	GS 15FH	GS 16FH	GS 18FH	GS 110FH	GS 115FH	GS 120FH	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V
Average Rectified Output Current @ 60Hz Sine Wave, Resistance Load, T _A (FIG.1)	I _O	1									A
Surge (Non-Repetitive) Forward Current @ 60Hz Half-Sine Wave, 1 Cycle, T _J =25°C	I _{FSM}	30									A
Thermal Resistance, Junction to Ambient ¹	R _{θJA}	70									°C/W
Thermal Resistance, Junction to Lead ¹	R _{θJL}	20									
Storage Temperature Range	T _{STG}	-55 to +150									°C
Junction Temperature Range	T _J	-55 to +150					-55 to +175				°C

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

Parameter	Symbol	Condition	GS 12FH	GS 13FH	GS 14FH	GS 15FH	GS 16FH	GS 18FH	GS 110FH	GS 115FH	GS 120FH	Unit
Maximum Instantaneous Forward Voltage Drop	V _F	I _{FM} =1.0A	0.50			0.70		0.80		0.90		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ V _{RM} =V _{RRM}	I _{RRM}	T _A =25°C	0.5					0.1				mA
		T _A =100°C	10					5				

Note:

1. Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm x 3mm copper pad areas.

GS12FH thru GS120FH

Surface Mount Schottky Rectifiers
 Reverse Voltage 20V to 200V Forward Current 1A

Typical Characteristics Curves

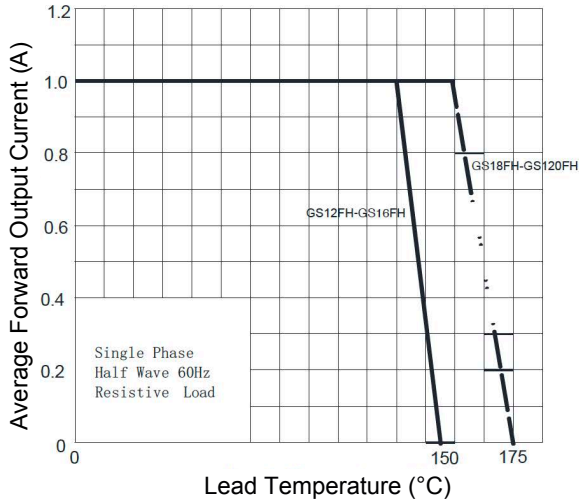


Figure 1. I_o - T_L Curve

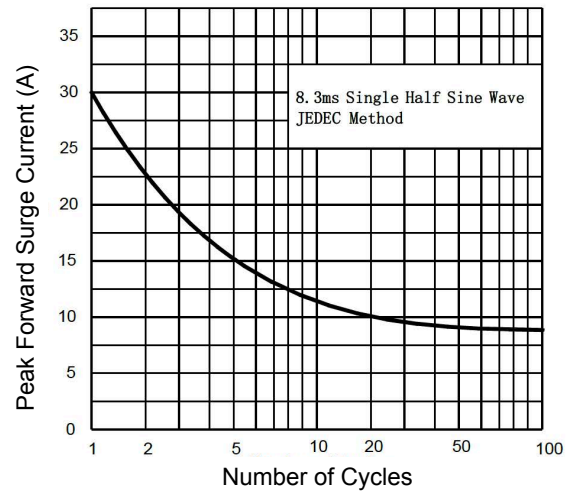


Figure 2. Surge Forward Current Capability

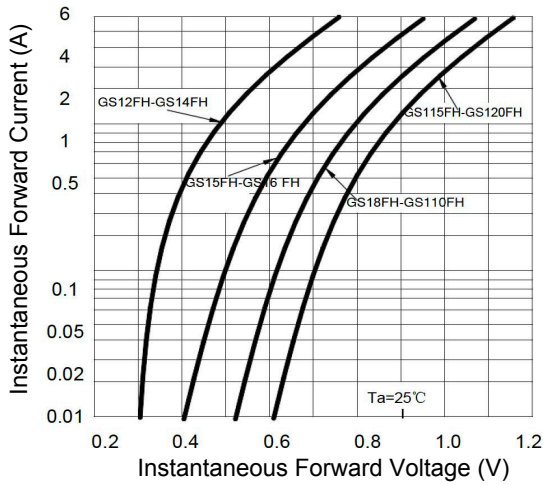


Figure 3. Forward Voltage

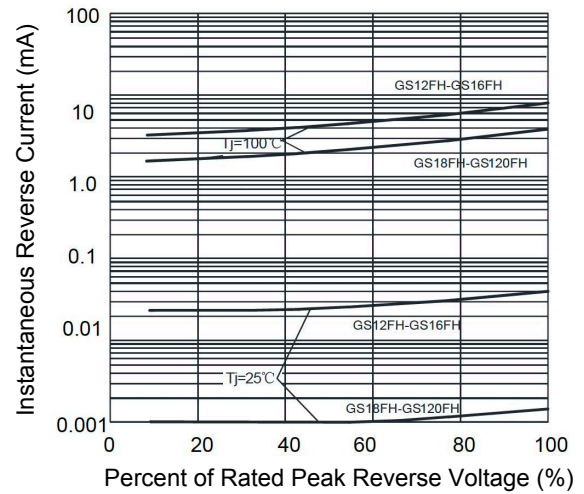
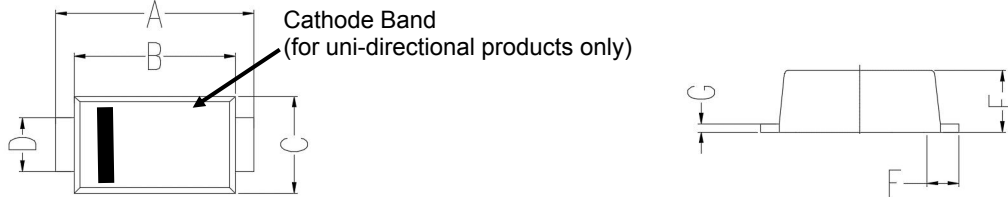


Figure 4. Typical Reverse Characteristics

GS12FH thru GS120FH

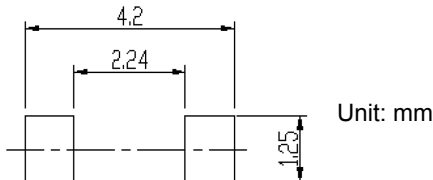
Surface Mount Schottky Rectifiers
 Reverse Voltage 20V to 200V Forward Current 1A

Package Outline Dimensions (SOD-123FL)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.500	3.900	0.138	0.154
B	2.900	3.100	0.114	0.122
C	1.700	2.000	0.067	0.079
D	0.850	1.050	0.033	0.041
E	0.880	1.080	0.035	0.043
F	0.430	0.830	0.017	0.033
G	0.100	0.250	0.004	0.010

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GS12FH	SOD-123FL	S12F	Tape & Reel	3,000 Pcs / Reel
GS13FH	SOD-123FL	S13F	Tape & Reel	3,000 Pcs / Reel
GS14FH	SOD-123FL	S14F	Tape & Reel	3,000 Pcs / Reel
GS15FH	SOD-123FL	S15F	Tape & Reel	3,000 Pcs / Reel
GS16FH	SOD-123FL	S16F	Tape & Reel	3,000 Pcs / Reel
GS18FH	SOD-123FL	S18F	Tape & Reel	3,000 Pcs / Reel
GS110FH	SOD-123FL	S110F	Tape & Reel	3,000 Pcs / Reel
GS115FH	SOD-123FL	S115F	Tape & Reel	3,000 Pcs / Reel
GS120FH	SOD-123FL	S120F	Tape & Reel	3,000 Pcs / Reel

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