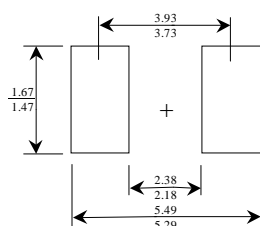


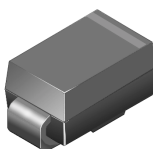
GF1A - GF1M

Features

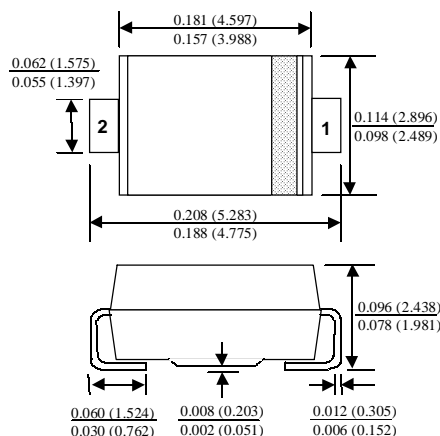
- Low forward voltage drop.
- High current capability.
- Easy pick and place.
- High surge current capability.



Minimum Recommended
Land Pattern



SMA/DO-214AC
COLOR BAND DENOTES CATHODE



1.0 Ampere Glass Passivated Rectifier

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
I_o	Average Rectified Current @ $T_L = 125^\circ\text{C}$	1.0	A
$i_{f(\text{surge})}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	30	A
P_D	Total Device Dissipation Derate above 25°C	2.0 13	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient **	80	$^\circ\text{C}/\text{W}$
$R_{\theta JC}$	Thermal Resistance, Junction to Case **	26	$^\circ\text{C}/\text{W}$
T_{stg}	Storage Temperature Range	-65 to +175	$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +175	$^\circ\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

** Device mounted on PCB with 0.2×0.2 " (5.0×5.0 mm) copper pad areas.

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Device							Units	
	1A	1B	1D	1G	1J	1K	1M		
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	35	70	140	280	420	560	800	V	
DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	V	
Maximum Reverse Current @ rated V_R									
$T_A = 25^\circ\text{C}$								5.0	μA
$T_A = 125^\circ\text{C}$								50	μA
Maximum Forward Voltage @ 1.0 A	1.0			1.2				V	
Maximum Reverse Recovery Time $I_F = 0.5$ A, $I_R = 1.0$ A, $I_{rr} = 0.25$ A	2.0							μS	
Typical Junction Capacitance $V_R = 4.0$ V, $f = 1.0$ MHz	15							pF	

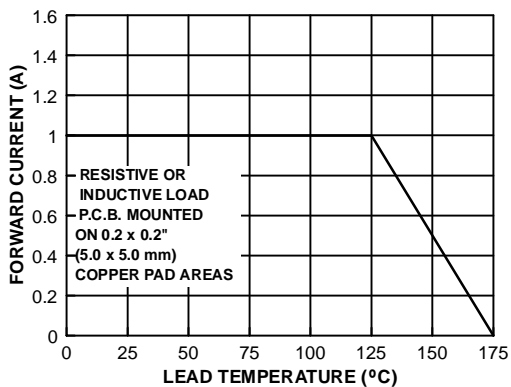
Surface Mount Glass Passivated Rectifier

(continued)

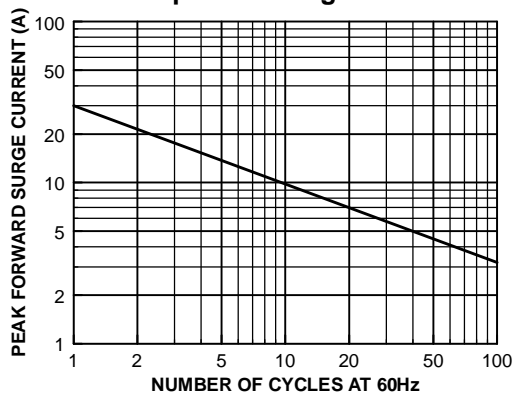
GF1A-GF1M

Typical Characteristics

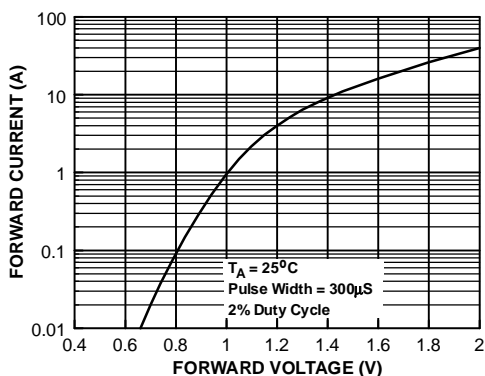
Forward Current Derating Curve



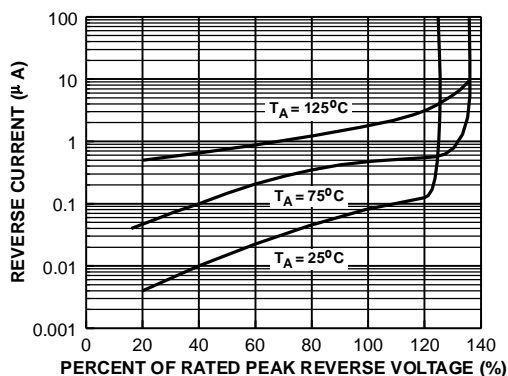
Non-Repetitive Surge Current



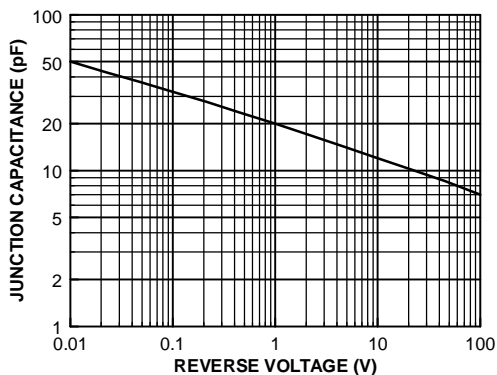
Forward Characteristics



Reverse Characteristics



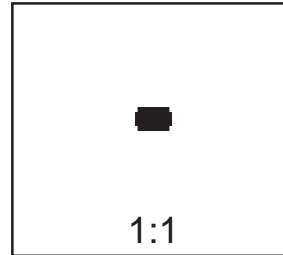
Typical Junction Capacitance



SMA/DO-214AC Package Dimensions



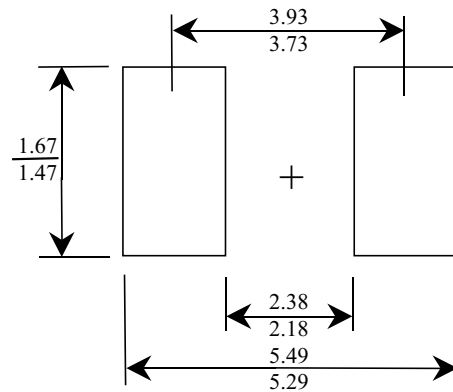
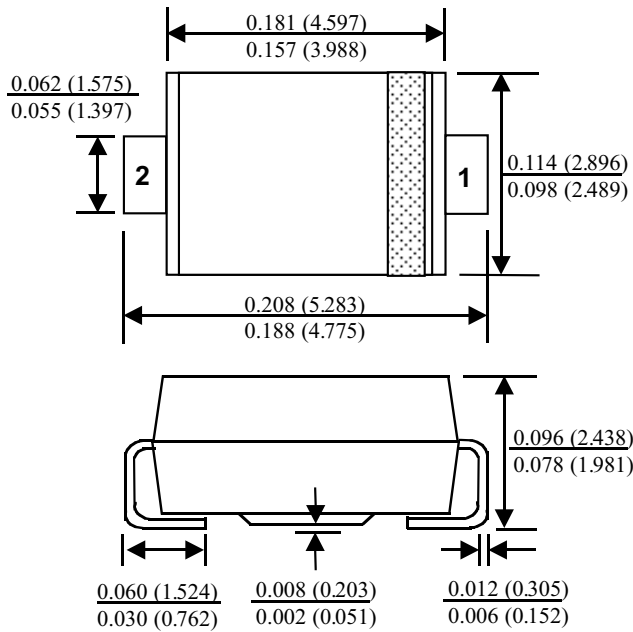
SMA/DO-214AC (FS PKG Code P5)



Scale 1:1 on letter size paper

Dimensions shown below are in:
inches [millimeters]

Part Weight per unit (gram): 0.064



Minimum Recommended
Land Pattern

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