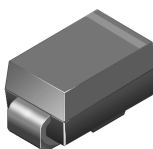
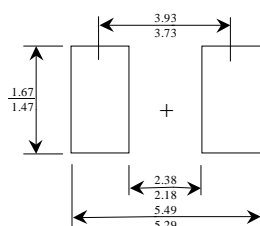


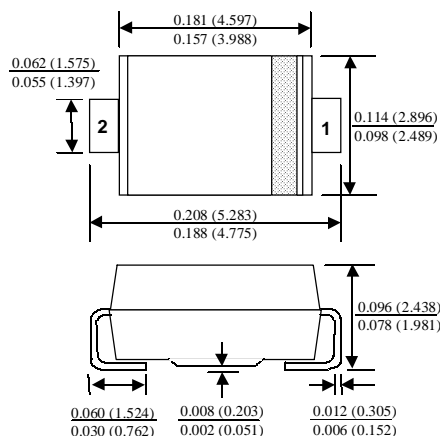
# GF1A - GF1M

## Features

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



**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 $25^\circ\text{C}$	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	$^\circ\text{C}/\text{W}$
$T_{\text{stg}}$	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  $0.2 \times 0.2$ " ( $5.0 \times 5.0$  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 $V_R$ $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	5.0 50							$\mu\text{A}$ $\mu\text{A}$
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							$\mu\text{S}$
Typical Junction Capacitance $V_R = 4.0$ V, $f = 1.0$ MHz	15							pF

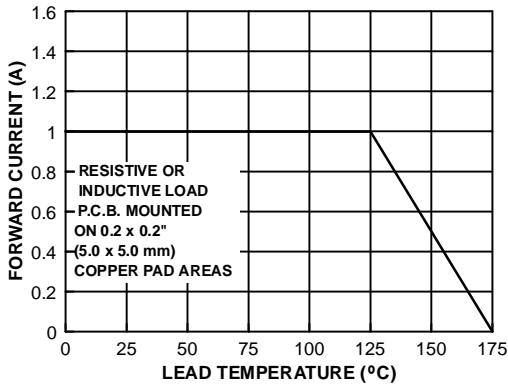
# Surface Mount Glass Passivated Rectifier

(continued)

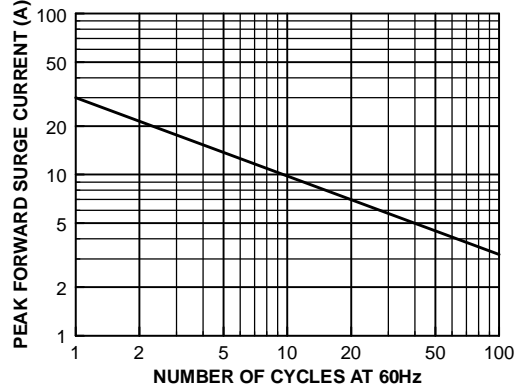
GF1A-GF1M

## Typical Characteristics

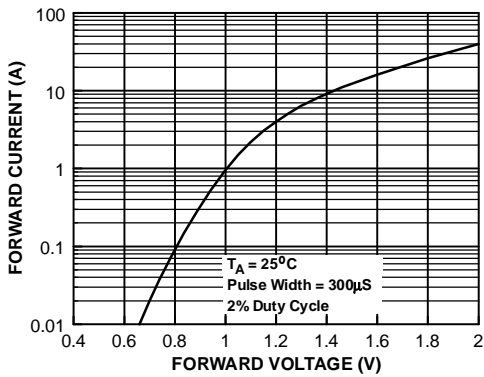
**Forward Current Derating Curve**



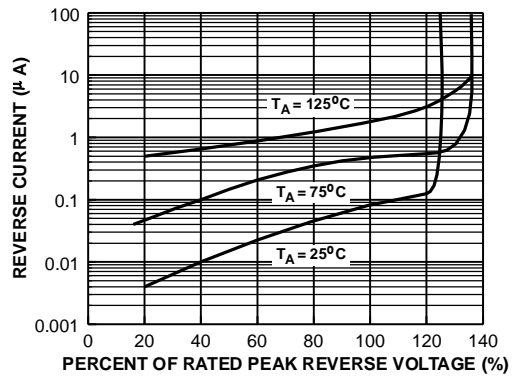
**Non-Repetitive Surge Current**



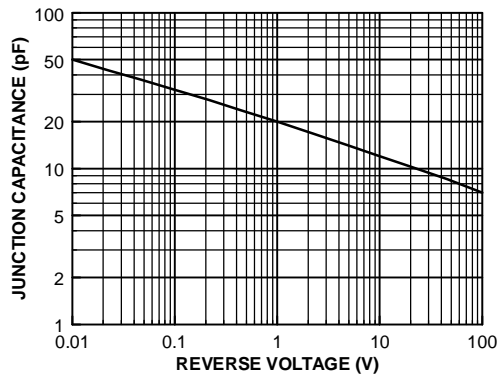
**Forward Characteristics**



**Reverse Characteristics**



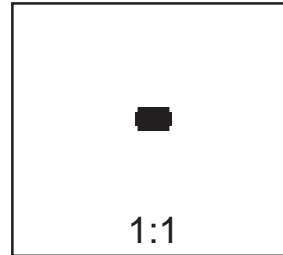
**Typical Junction Capacitance**



# SMA/DO-214AC Package Dimensions



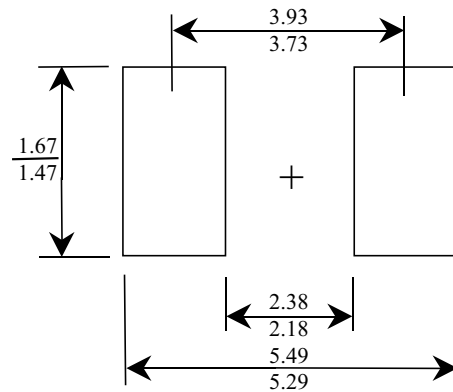
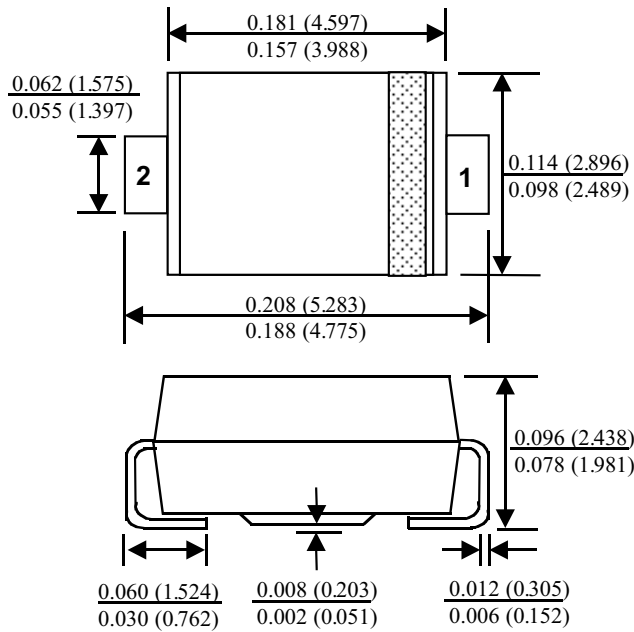
## SMA/DO-214AC (FS PKG Code P5)



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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