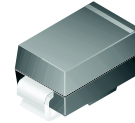


# General Purpose Rectifiers (Glass Passivated)

## GF1A, GF1B, GF1D, GF1G, GF1J, GF1K, GF1M

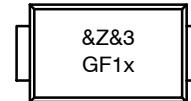


COLOR BAND DENOTES CATHODE  
**SMA (DO-214AC)**  
**CASE 403AE**

### Features

- Low Forward Voltage Drop
- High Current Capability
- Easy Pick and Place
- High Surge Current Capability
- These Devices are Pb-Free, Halide Free and are RoHS Compliant

### MARKING DIAGRAM



&Z = Assembly Plant Code  
 &3 = 3-Digit Date Code  
 GF1x = Specific Device Code  
 (x = A, B, D, G, J, K, M)

### ORDERING INFORMATION

Device	Package	Shipping <sup>†</sup>
GF1A	SMA (Pb-Free, Halide Free)	7500 / Tape & Reel
GF1B		
GF1D		
GF1G		
GF1J		
GF1K		
GF1M		

<sup>†</sup>For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, [BRD8011/D](#).

# GF1A, GF1B, GF1D, GF1G, GF1J, GF1K, GF1M

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)

Symbol	Parameter	Value							Unit
		1A	1B	1D	1G	1J	1K	1M	
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
I <sub>F(AV)</sub>	Average Rectified Forward Current, @ T <sub>L</sub> = 125°C	1.0							A
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	30							A
T <sub>stg</sub>	Storage Temperature Range	-65 to +175							°C
T <sub>J</sub>	Operating Junction Temperature	-65 to +175							°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

## THERMAL CHARACTERISTICS

Symbol	Parameter	Value	Unit
P <sub>D</sub>	Power Dissipation	1.8	W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient*	80	°C/W
R <sub>θJL</sub>	Thermal Resistance, Junction to Lead*	26	°C/W

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

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted)

Symbol	Parameter	Device							Unit
		1A	1B	1D	1G	1J	1K	1M	
V <sub>F</sub>	Forward Voltage @ 1.0 A	1.0					1.2		V
t <sub>rr</sub>	Reverse Recovery Time I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>rr</sub> = 0.25 A	2.0							μs
I <sub>R</sub>	Reverse Current @ Rated V <sub>R</sub>  T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C	5.0 50.0							μA μA
C <sub>T</sub>	Total Capacitance V <sub>R</sub> = 4.0 V, f = 1.0 MHz	15							pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

# GF1A, GF1B, GF1D, GF1G, GF1J, GF1K, GF1M

## TYPICAL CHARACTERISTICS

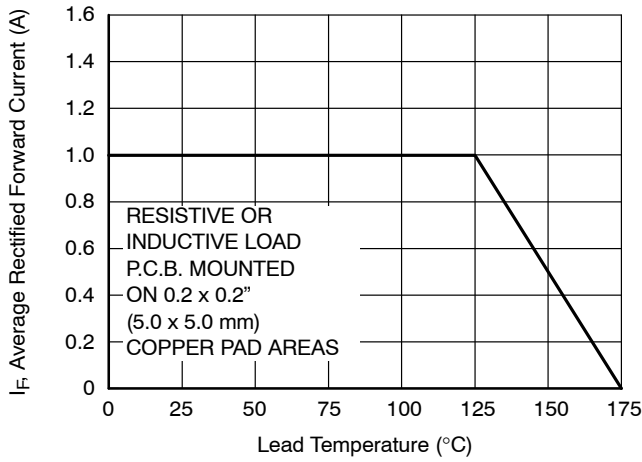


Figure 2. Forward Current Derating Curve

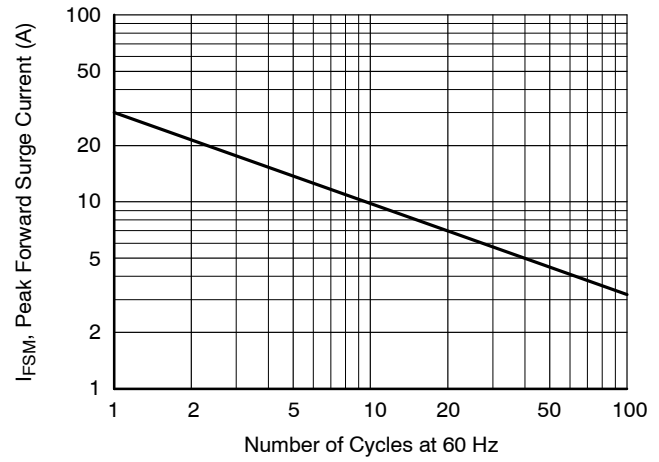


Figure 3. Non-Repetitive Surge Current

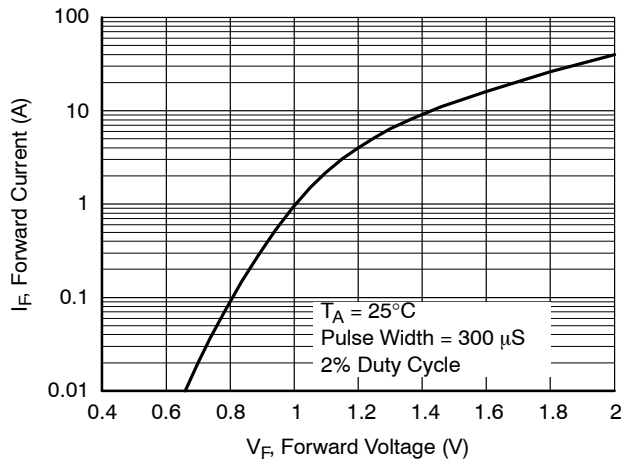


Figure 1. Forward Voltage Characteristics

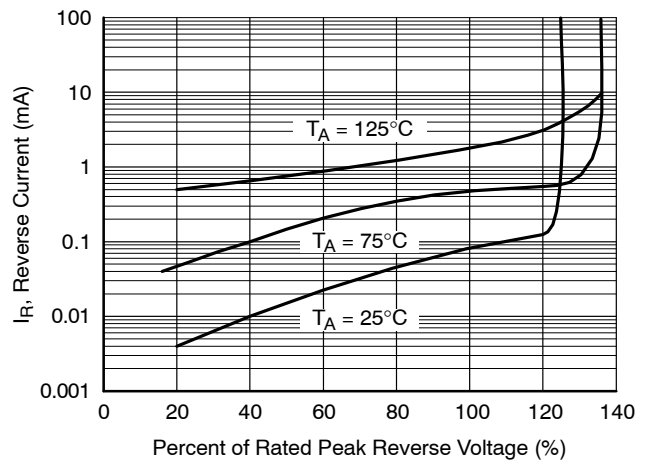


Figure 4. Reverse Current vs. Reverse Voltage

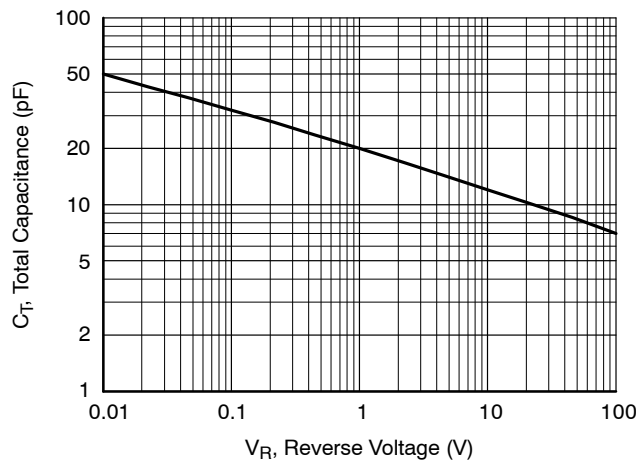


Figure 5. Total Capacitance

# MECHANICAL CASE OUTLINE

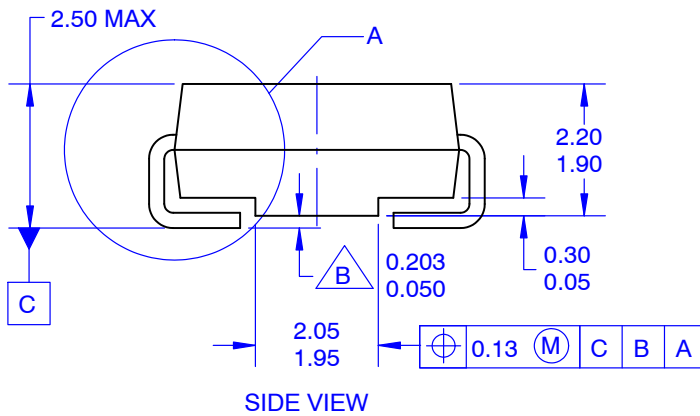
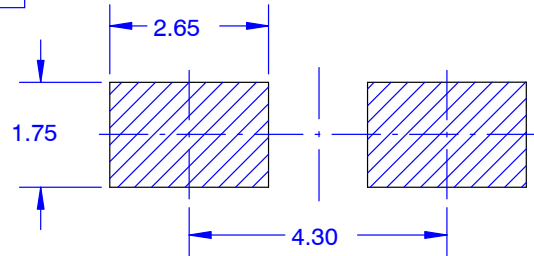
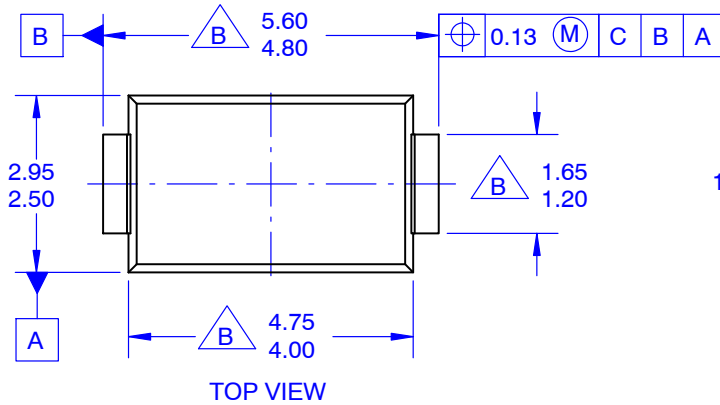
## PACKAGE DIMENSIONS

ON Semiconductor®



SMA  
CASE 403AE  
ISSUE O

DATE 31 AUG 2016



### NOTES:

- A. EXCEPT WHERE NOTED, CONFORMS TO JEDEC DO214 VARIATION AC.
- B. DOES NOT COMPLY JEDEC STANDARD VALUE.
- C. ALL DIMENSIONS ARE IN MILLIMETERS.
- D. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
- E. DIMENSIONS AND TOLERANCE AS PER ASME Y14.5-2009.
- E. LAND PATTERN STD. DIOM5025X231M



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