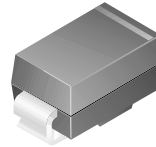


# GF1A - GF1M

## Features

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



**SMA/DO-214AC**  
COLOR BAND DENOTES CATHODE

## General Purpose Rectifiers (Glass Passivated)

### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value							Units
		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

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

### Thermal Characteristics

Symbol	Parameter	Value	Units
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							Units
		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							μA μA
C <sub>T</sub>	Total Capacitance V <sub>R</sub> = 4.0 V, f = 1.0 MHz	15							pF

Typical Characteristics

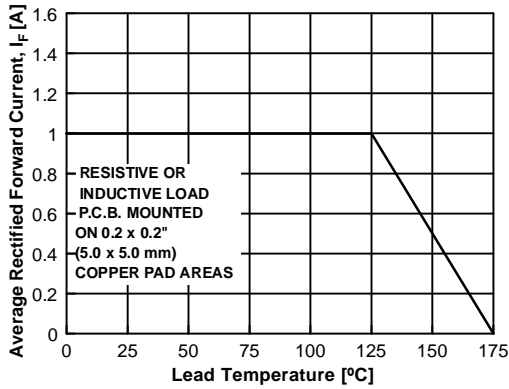


Figure 1. Forward Current Derating Curve

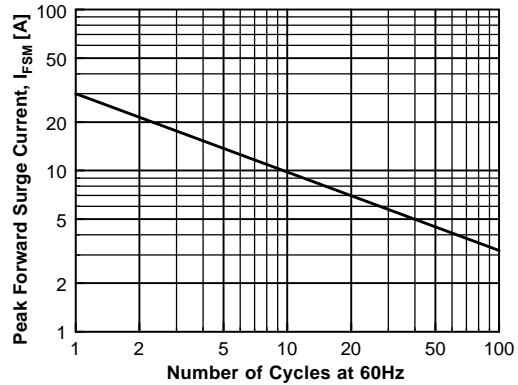


Figure 2. Non-Repetitive Surge Current

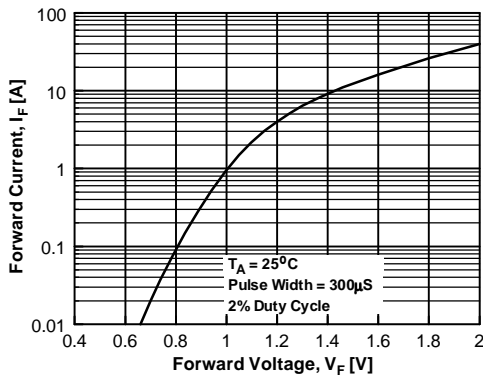


Figure 3. Forward Voltage Characteristics

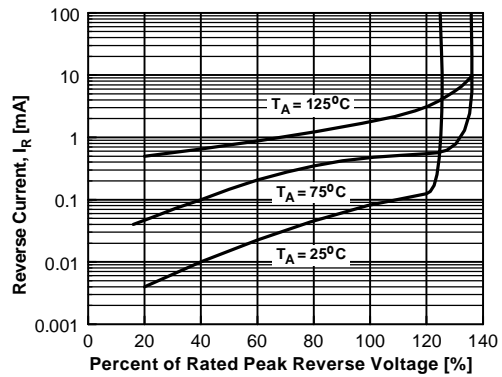


Figure 4. Reverse Current vs Reverse Voltage

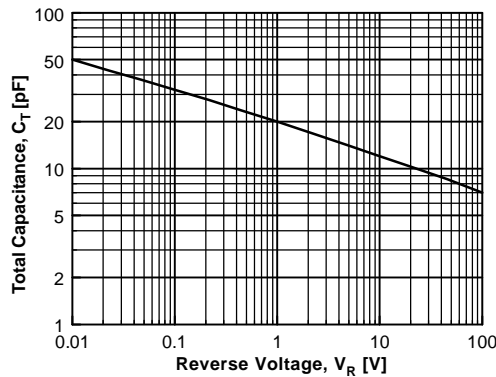


Figure 5. Total Capacitance

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DenseTrench <sup>TM</sup>	GTO <sup>TM</sup>	Power247 <sup>TM</sup>	SuperSOT <sup>TM</sup> -6	
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EnSigna <sup>TM</sup>	MicroFET <sup>TM</sup>	QT Optoelectronics <sup>TM</sup>	TruTranslation <sup>TM</sup>	
FACT <sup>TM</sup>	MicroPak <sup>TM</sup>	Quiet Series <sup>TM</sup>	UHC <sup>TM</sup>	
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