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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_A = 25°C unless otherwise noted

Symbol	Parameter Value				Units				
		1A	1B	1D	1G	1J	1K	1M	
V_{RRM}	Maximum Repetitive Reverse Voltage		100	200	400	600	800	1000	V
I _{F(AV)}	Average Rectified Forward Current, @ T _L = 125°C				Α				
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave 30			Α					
T _{stg}	Storage Temperature Range -65 to +175			°C					
T _J	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_D	Power Dissipation	1.8	W		
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient*	80	°C/W		
$R_{\theta JL}$	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_A = 25°C unless otherwise noted

Symbol	Parameter		Device							Units
			1A	1B	1D	1G	1J	1K	1M	
V_{F}	Forward Voltage @ 1.0 A				1.0			1.	.2	V
t _{rr}	Reverse Recovery Time $I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A}, I_{rr} = 0.25 \text{ A}$ 2.0			μѕ						
I _R	Reverse Current @ rated V_R $T_A = 25^\circ$ $T_A = 125^\circ$					5.0 50				μA μA
Ст	Total Capacitance $V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$			pF						

General Purpose Rectifiers (Glass Passivated)

(continued)

Typical Characteristics

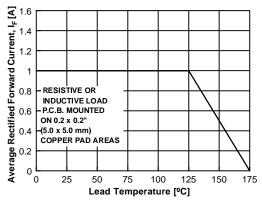


Figure 1. Forward Current Derating Curve

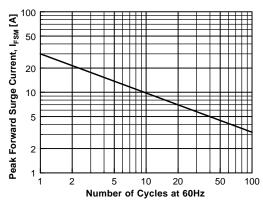


Figure 2. Non-Repetitive Surge Current

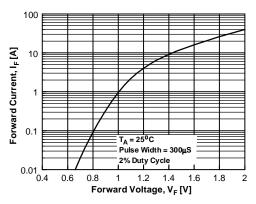


Figure 3. Forward Voltage Characteristics

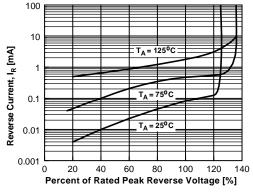


Figure 4. Reverse Current vs Reverse Voltage

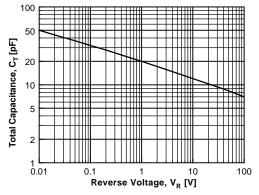


Figure 5. Total Capacitance

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Datasheet Identification	Product Status	Definition
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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