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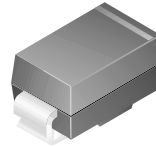


GF1A - GF1M

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 | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| I _{F(AV)} | Average Rectified Forward Current, @ T _L = 125°C | 1.0 | | | | | | | A |
| I _{FSM} | Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave | 30 | | | | | | | A |
| 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 _{θJA} | Thermal Resistance, Junction to Ambient* | 80 | °C/W |
| R _{θJL} | 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 A, I _R = 1.0 A, I _{rr} = 0.25 A | 2.0 | | | | | | | μs |
| I _R | Reverse Current @ rated V _R T _A = 25°C T _A = 125°C | 5.0 | | | | | 50 | | μA |
| C _T | Total Capacitance V _R = 4.0 V, f = 1.0 MHz | 15 | | | | | | | pF |

Typical Characteristics

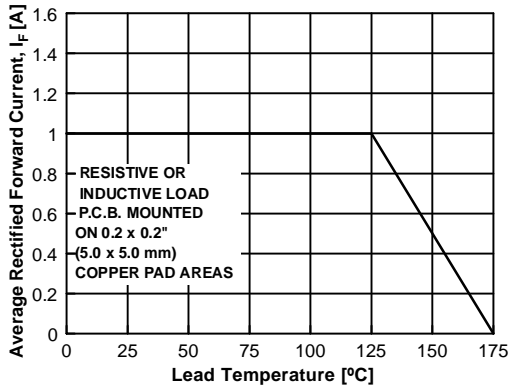


Figure 1. Forward Current Derating Curve

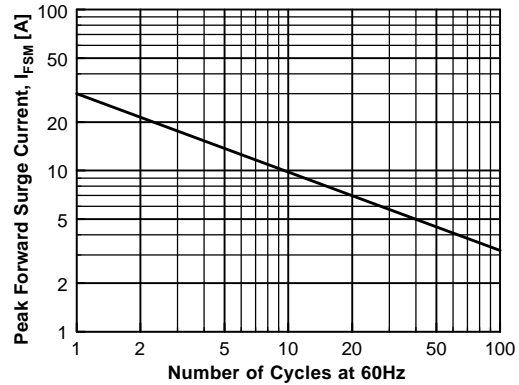


Figure 2. Non-Repetitive Surge Current

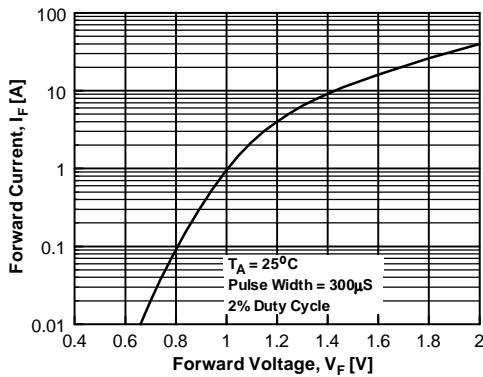


Figure 3. Forward Voltage Characteristics

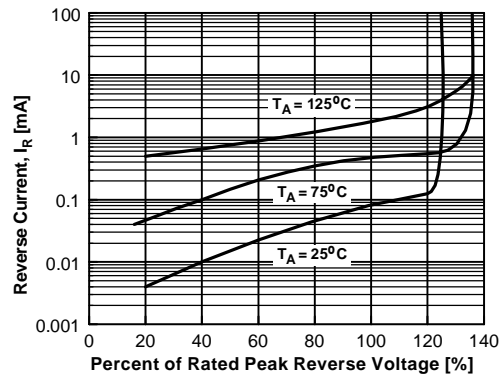


Figure 4. Reverse Current vs Reverse Voltage

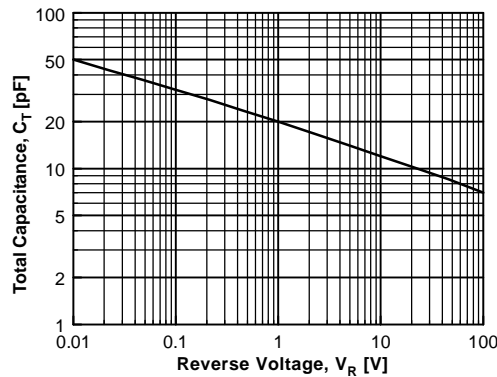


Figure 5. Total Capacitance

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