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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 $I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A}, I_{rr} = 0.25 \text{ A}$ | | | μS | | | | | | |
| 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

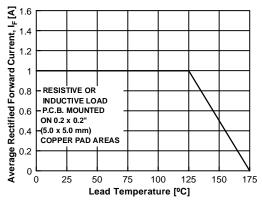


Figure 1. Forward Current Derating Curve

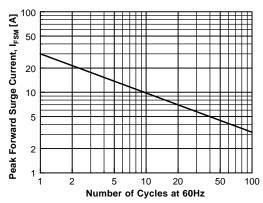


Figure 2. Non-Repetitive Surge Current

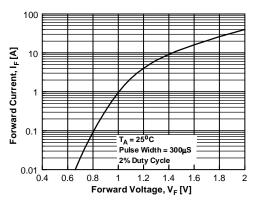


Figure 3. Forward Voltage Characteristics

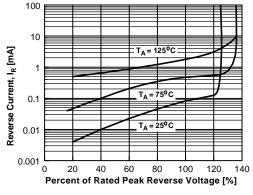


Figure 4. Reverse Current vs Reverse Voltage

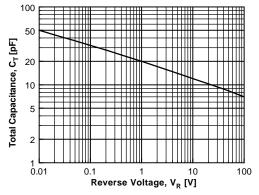


Figure 5. Total Capacitance

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|--------------------------|---------------------------|---|
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