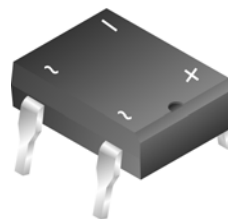


DF005M - DF10M Bridge Rectifiers

Features

- Surge overload rating: 50 amperes peak.
- Glass passivated junction.
- Low leakage.
- UL certified, UL #E111753 and E326243.



DIP

Absolute Maximum Ratings * $T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | | | | | | | Units |
|-------------|---|-------------|-----|-----|-----|-----|-----|------|------------------|
| | | 005M | 01M | 02M | 04M | 06M | 08M | 10M | |
| V_{RRM} | Maximum Repetitive Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| V_{RMS} | Maximum RMS Bridge Input Voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| V_R | DC Reverse Voltage (Rated V_R) | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current, @ $T_A = 40^\circ\text{C}$ | 1.5 | | | | | | | A |
| I_{FSM} | Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave | 50 | | | | | | | A |
| T_{STG} | Storage Temperature Range | -55 to +150 | | | | | | | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | -55 to +150 | | | | | | | $^\circ\text{C}$ |

* 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 | 3.1 | W |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient, * per leg | 40 | $^\circ\text{C/W}$ |

* Device mounted on PCB with $0.5 \times 0.5"$ ($13 \times 13\text{mm}$).

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|--------|---|-------|----------------------|
| V_F | Forward Voltage, per element @ 1.0A | 1.1 | V |
| I_R | Reverse Current, per element @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ | 5.0 | μA |
| | | 500 | μA |
| | I^2t Rating for Fusing $t < 8.35\text{ms}$ | 10 | A^2s |
| C_T | Total Capacitance, per leg $V_R = 4.0\text{V}$, $f = 1.0\text{MHz}$ | 25 | pF |

Typical Performance Characteristics

Figure 1. Non-Repetitive Surge Current

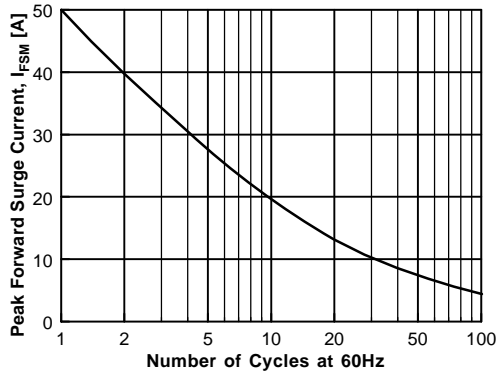


Figure 2. Forward Current Derating Curve

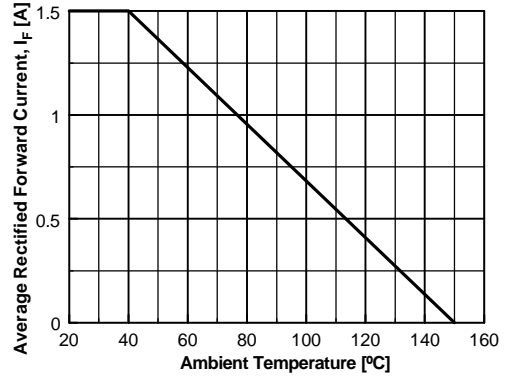


Figure 3. Forward Voltage Characteristics

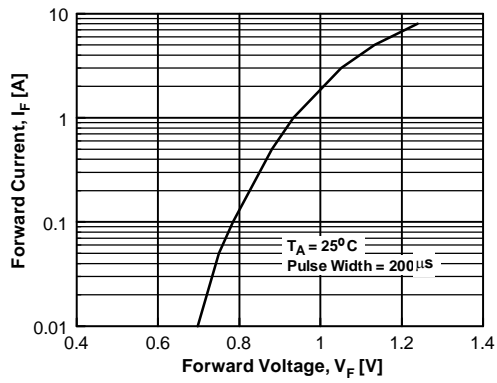
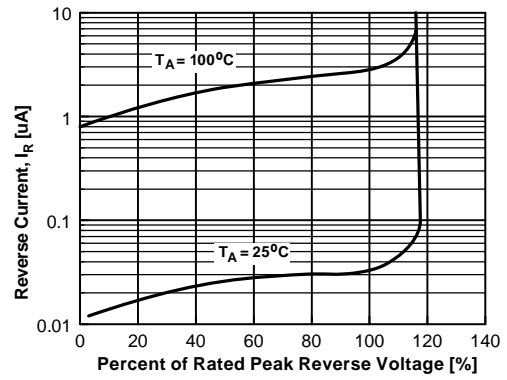







Figure 4. Reverse Current vs Reverse Voltage





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