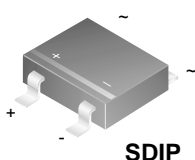


DF005S - DF10S Bridge Rectifiers

Features

- Surge overload rating: 50 amperes peak.
- Glass passivated junction.
- Low leakage.
- UL certified, UL #E96005.



Absolute Maximum Ratings * T_a = 25°C unless otherwise noted

| Symbol | Parameter | Value | | | | | | | Units |
|--------------------|--|-------------|-----|-----|-----|-----|-----|------|-------|
| | | 005S | 01S | 02S | 04S | 06S | 08S | 10S | |
| 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°C | 1.5 | | | | | | | A |
| I _{FSM} | Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave | 50 | | | | | | | A |
| T _{STG} | Storage Temperature Range | -55 to +150 | | | | | | | °C |
| T _J | Operating Junction Temperature | -55 to +150 | | | | | | | °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 _{θJA} | Thermal Resistance, Junction to Ambient, * per leg | 40 | °C/W |

* Device mounted on PCB with 0.5 × 0.5" (13 × 13mm).

Electrical Characteristics T_C = 25°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°C T _A = 125°C | 50 500 | μA μA |
| | I ² t Rating for Fusing t < 8.35ms | 10 | A ² s |
| C _T | Total Capacitance, per leg V _R = 4.0V, f = 1.0MHz | 25 | pF |

Typical Performance Characteristics

Figure 1.

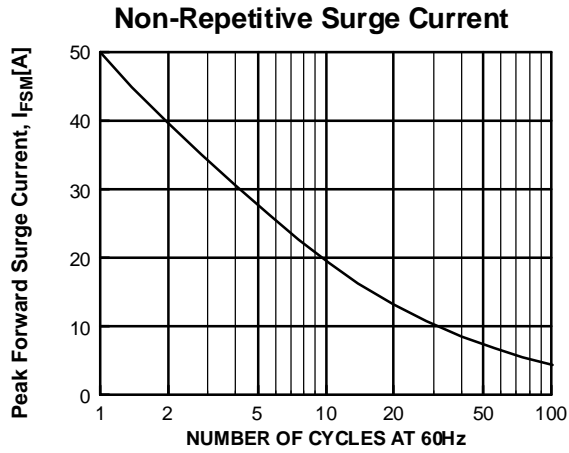


Figure 2.

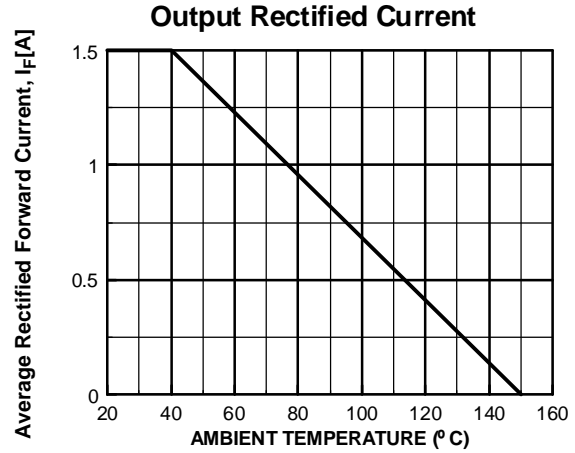


Figure 3.

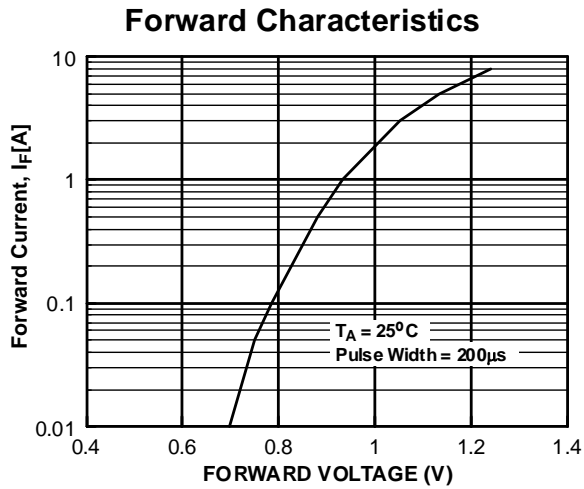
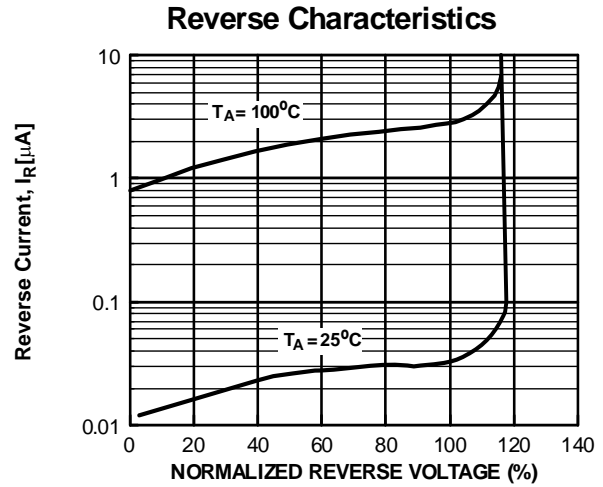


Figure 4.



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