

Bridge Rectifier

DF04M

400V / 1A

DATASHEET

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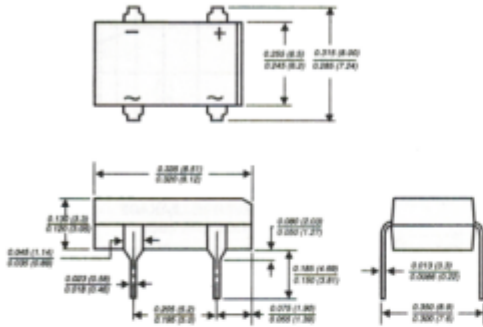
Source: General Semiconductor Databook 1998

DF005M THRU DF10M

MINIATURE GLASS PASSIVATED SINGLE-PHASE-BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

Case Style DFM



Dimensions in inches and (millimeters)

FEATURES

- ◆ This series is UL listed under the Recognized Component Index, file number E54214
- ◆ Plastic package used has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junctions
- ◆ Surge overload rating of 50 Amperes peak
- ◆ Ideal for printed circuit boards
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs. (2.3kg) tension



MECHANICAL DATA

Case: Molded plastic body over passivated junctions

Terminals: Plated lead solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on body

Mounting Position: Any

Weight: 0.04 ounce, 1.0 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | DF 005M | DF 01M | DF 02M | DF 04M | DF 06M | DF 08M | DF 10M | UNITS |
|---|--------------|--------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward output rectified current at TA=40°C | IAV | 1.0 | | | | | | | Amp |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM | 50.0 | | | | | | | Amps |
| Rating for fusing (t < 8.3ms) | IFt | 10.0 | | | | | | | A²sec |
| Maximum instantaneous forward voltage drop per leg at 1.0A | VF | 1.1 | | | | | | | Volts |
| Maximum reverse current at rated DC blocking voltage per leg | IR | 5.0 500.0 | | | | | | | µA |
| Typical junction capacitance per leg (NOTE 1) | CJ | 25.0 | | | | | | | pF |
| Typical thermal resistance per leg (NOTE 2) | REJA REJL | 40.0 15.0 | | | | | | | °C/W |
| Operating junction and storage temperature range | TJ, TSTG | -55 to +150 | | | | | | | °C |

NOTES:

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (2) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads

RATINGS AND CHARACTERISTICS CURVES DF005M THRU DF10M

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

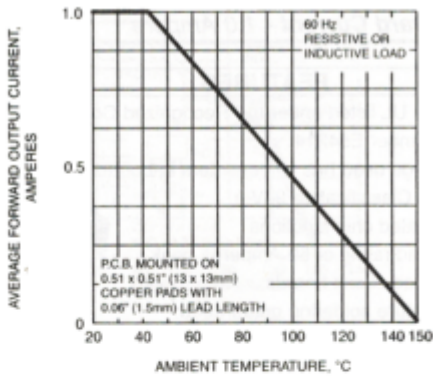


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

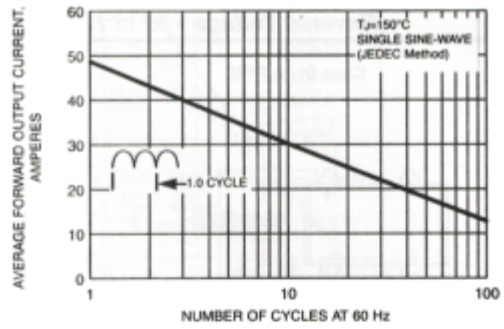


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

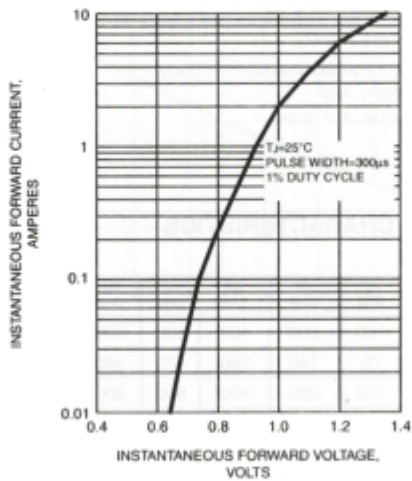


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

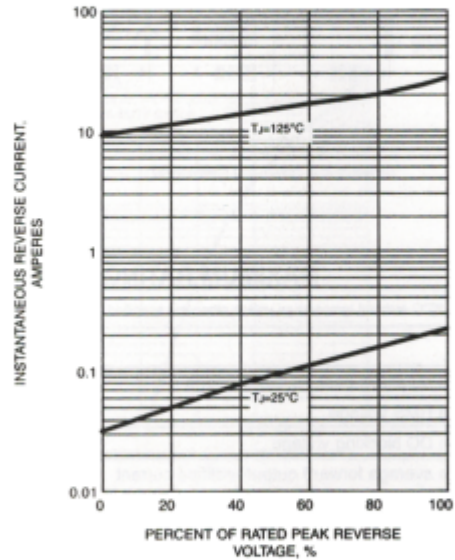


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

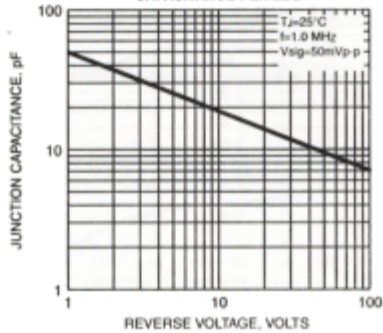


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

