

Bridge Rectifier

DF005M

50V / 1A

DATASHEET

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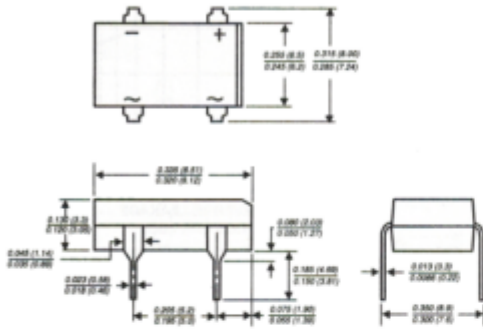
Source: General Semiconductor Databook 1998

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	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward output rectified current at T _A =40°C	I _(AV)	1.0							Amp
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50.0							Amps
Rating for fusing (t < 8.3ms)	I _t	10.0							A ² sec
Maximum instantaneous forward voltage drop per leg at 1.0A	V _F	1.1							Volts
Maximum reverse current at rated DC blocking voltage per leg	I _R	5.0 500.0							μA
Typical junction capacitance per leg (NOTE 1)	C _J	25.0							pF
Typical thermal resistance per leg (NOTE 2)	R _{θJA} R _{θJL}	40.0 15.0							°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-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

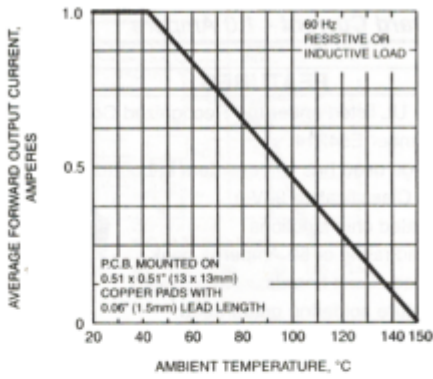


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

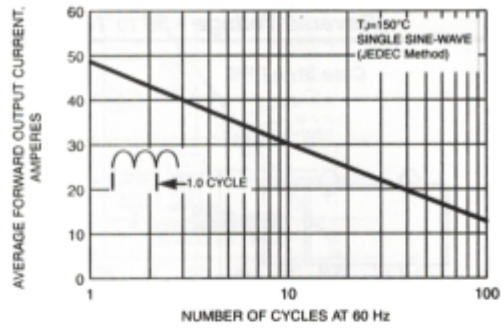


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

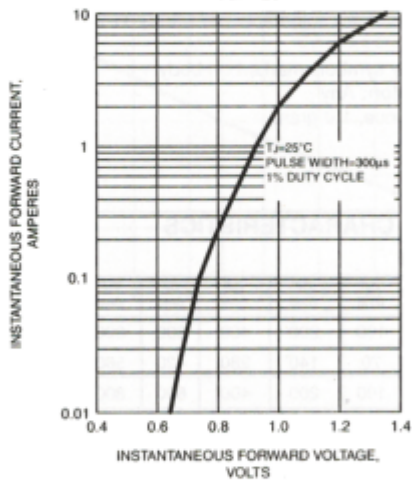


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

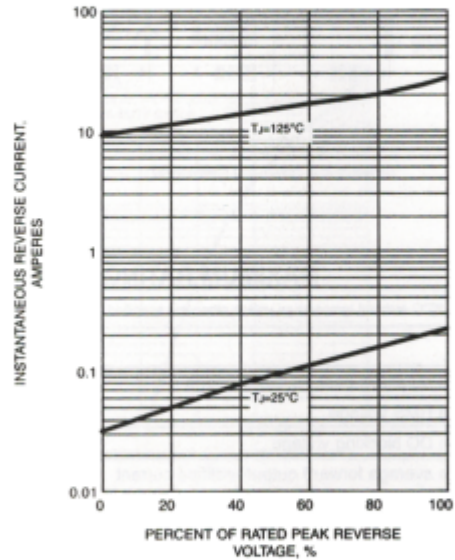


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

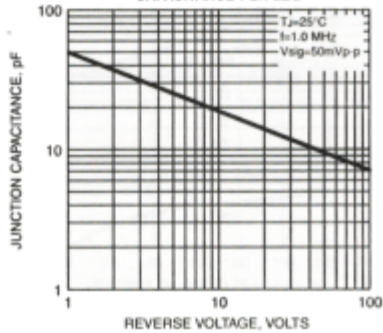


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

