

# DF005M THRU DF10M

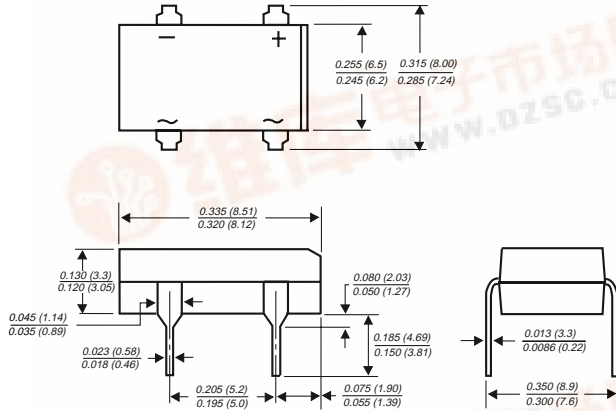
## MINIATURE GLASS PASSIVATED SINGLE-PHASE-BRIDGE RECTIFIER

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

### Case Style DFM

### 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

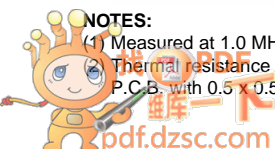
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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 <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward output rectified current at T <sub>A</sub> =40°C	I <sub>(AV)</sub>	1.0							Amp
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	50.0							Amps
Rating for fusing (t < 8.3ms)	I <sup>2</sup> t	10.0							A <sup>2</sup> sec
Maximum instantaneous forward voltage drop per leg at 1.0A	V <sub>F</sub>	1.1							Volts
Maximum reverse current at rated DC blocking voltage per leg	I <sub>R</sub>	5.0 500.0							μA
Typical junction capacitance per leg (NOTE 1)	C <sub>J</sub>	25.0							pF
Typical thermal resistance per leg (NOTE 2)	R <sub>θJA</sub> R <sub>θJL</sub>	40.0 15.0							°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

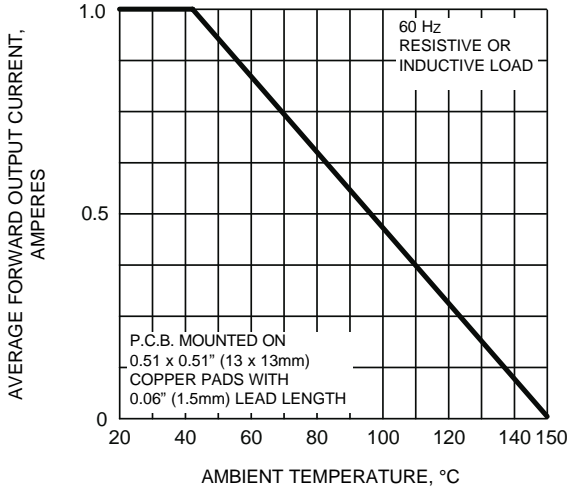
### NOTES:

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts  
 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

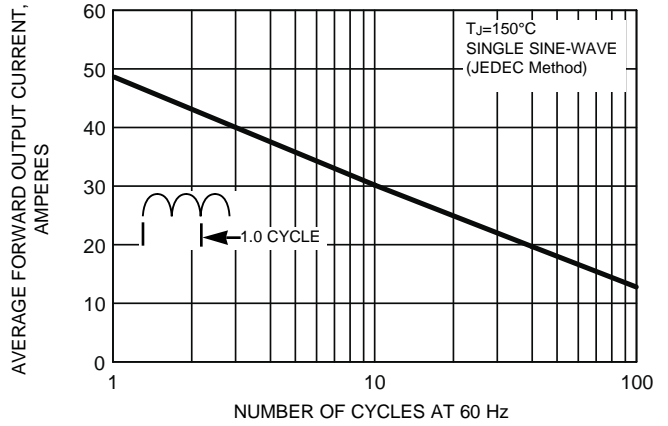


# RATINGS AND CHARACTERISTICS CURVES DF005M THRU DF10M

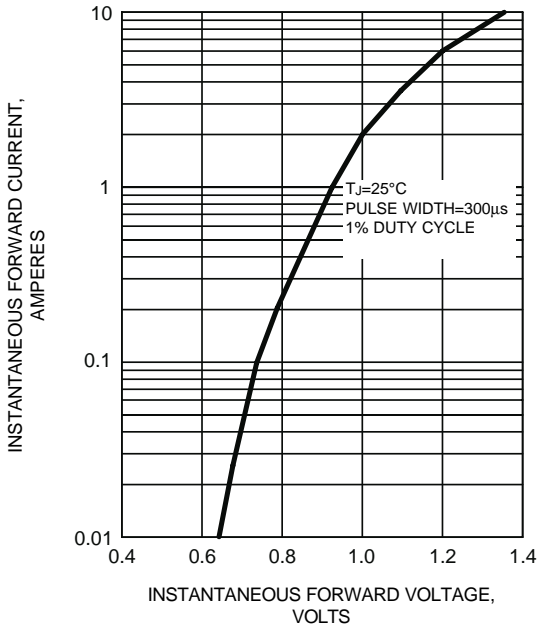
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



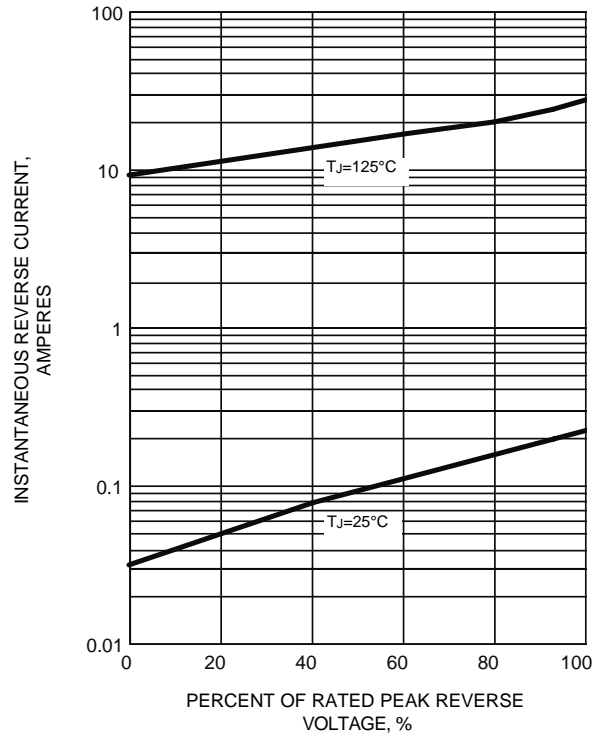
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



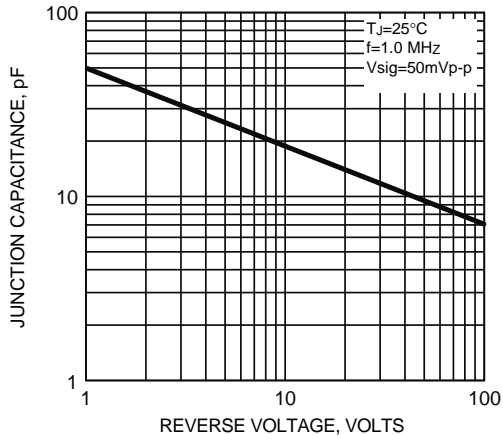
**FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG**



**FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG**



**FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE**

