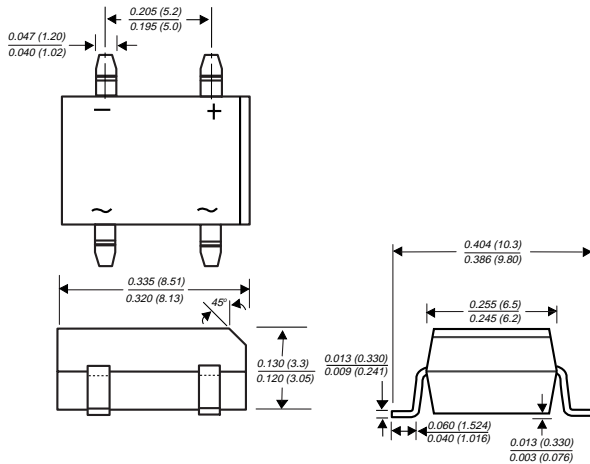


# DF005S THRU DF10S

## MINIATURE GLASS PASSIVATED SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

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

### Case Style DFS



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ This series is UL recognized under Component Index, file number E54214
- ◆ Glass passivated chip junctions
- ◆ High surge overload rating-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 leads 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.

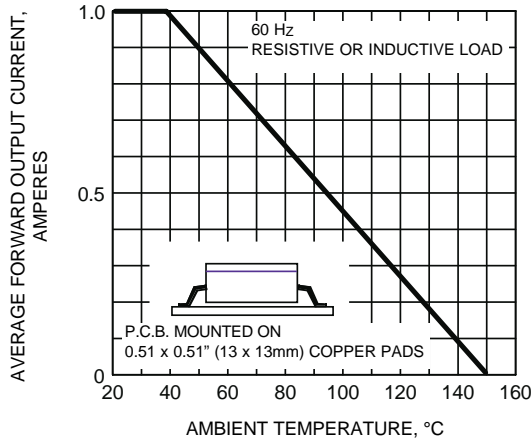
	SYMBOLS	DF 005S	DF 01S	DF 02S	DF 04S	DF 06S	DF 08S	DF 10S	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward output rectified current at T <sub>A</sub> =40°C (NOTE 2)	I <sub>(AV)</sub>	1.0							Amp
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) T <sub>J</sub> =150°C	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 DC reverse current at rated DC blocking voltage per leg	I <sub>R</sub>	5.0 500							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:

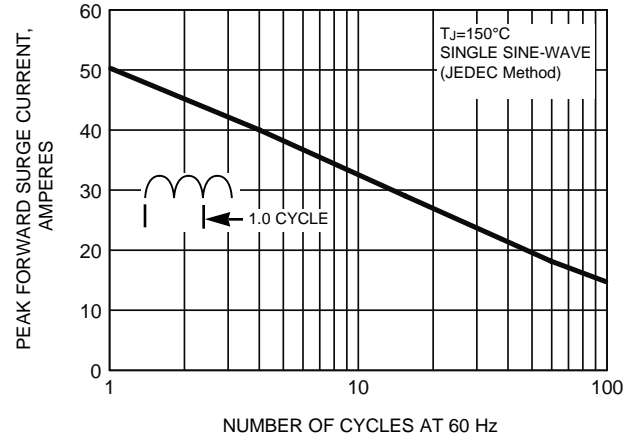
- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (2) Units mounted on P.C.B. with 0.51 x 0.51" (13 x 13mm) copper pads

# RATINGS AND CHARACTERISTICS CURVES DF005S THRU DF10S

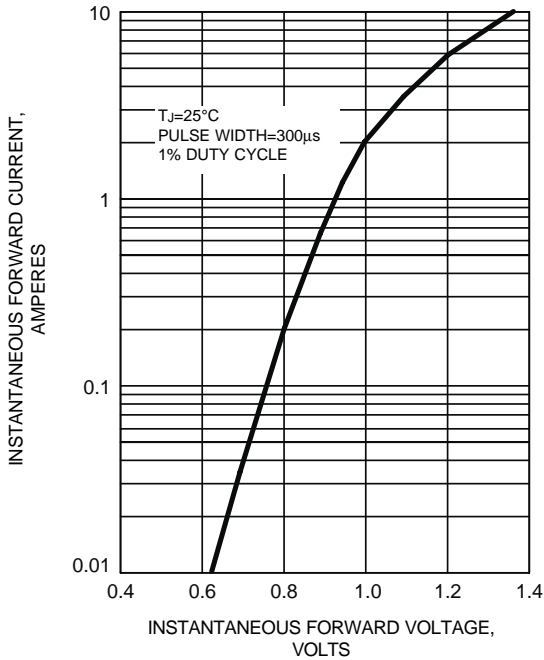
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



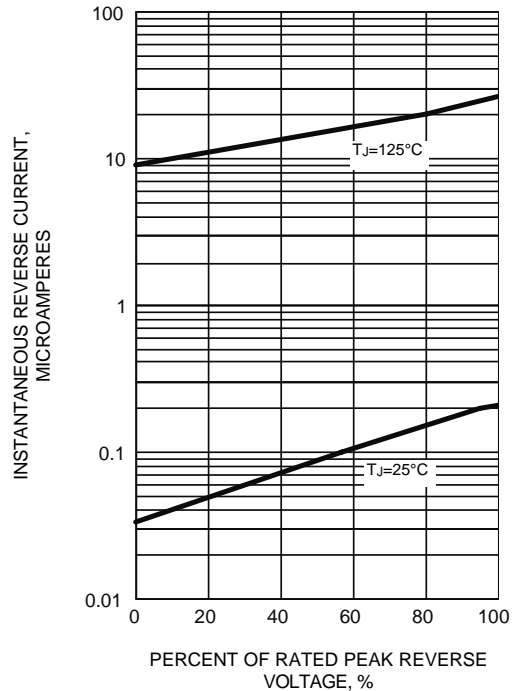
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



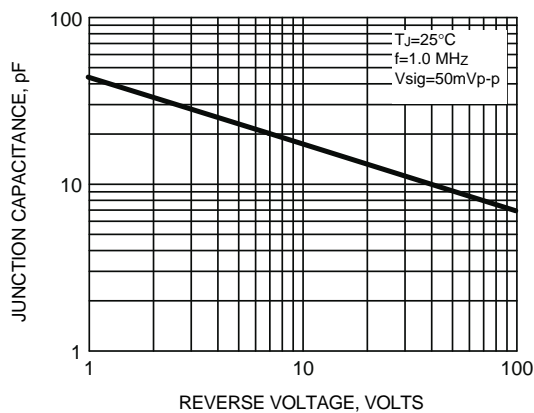
**FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG**



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



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**



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

