

# DF005M THRU DF10M

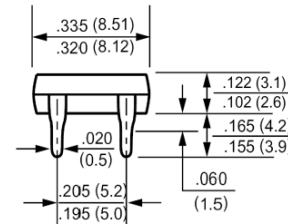
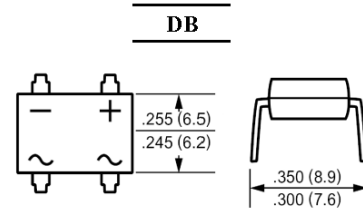
## MINIATURE GLASS PASSIVATED SINGLE-PHASE-BRIDGE RECTIFIERS

### Features

- 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



**Dimensions in inches and (millimeters)**

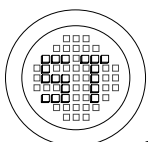
### Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	DF	DF	DF	DF	DF	DF	DF	Unit
		005M	01M	02M	04M	06M	08M	10M	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current at $T_A = 40\text{ }^\circ\text{C}^{(2)}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current Single Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	50							A
Maximum Forward Voltage Drop Per Leg at 1 A	$V_F$	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage Per Leg $T_A = 25\text{ }^\circ\text{C}$ $T_A = 125\text{ }^\circ\text{C}$	$I_R$	5 500							$\mu\text{A}$
Rating for Fusing ( $t < 8.35\text{ ms}$ )	$I^2t$	10							$\text{A}^2\text{sec}$
Typical Junction Capacitance Per Leg <sup>1)</sup>	$C_J$	25							pF
Typical Thermal Resistance Per Leg <sup>2)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	40 15							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_S$	-55 to +150							$^\circ\text{C}$

<sup>1)</sup> Measured at 1MHz and applied reverse voltage of 4 Volts

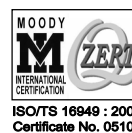
<sup>2)</sup> Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 X 0.5" (13 X 13 mm) copper pads.



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# DF 005M THRU DF 10M

FIG.1-DERATING CURVE OUTPUT RECTIFIED CURRENT

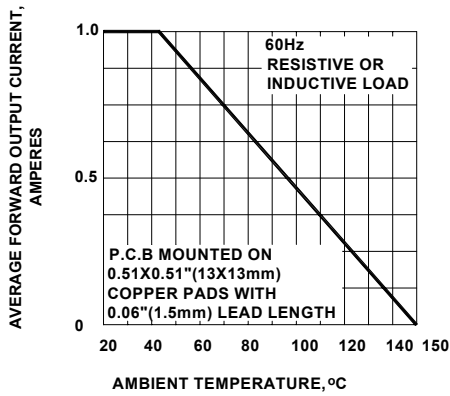


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

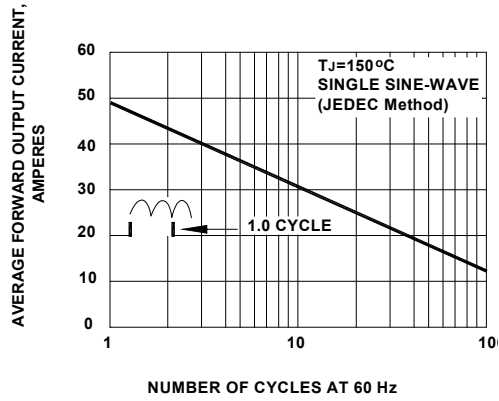


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER LEG

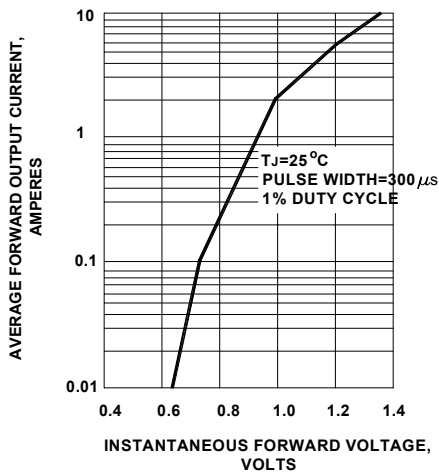


FIG.4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

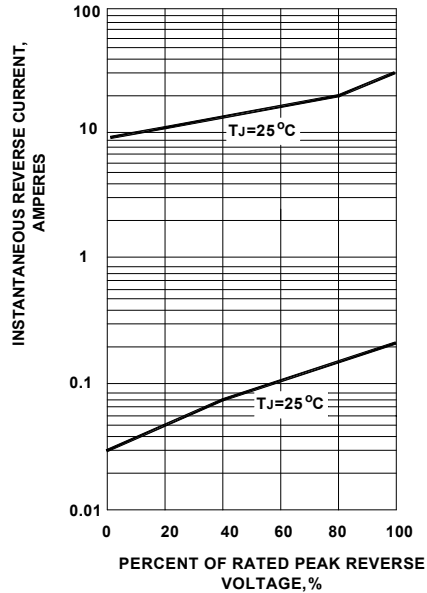


FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG

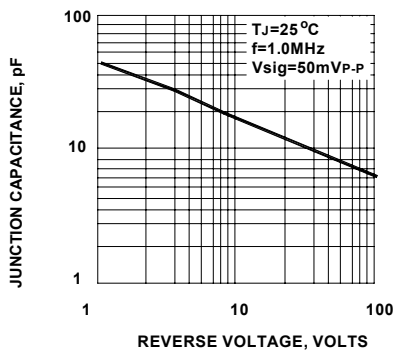
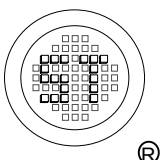
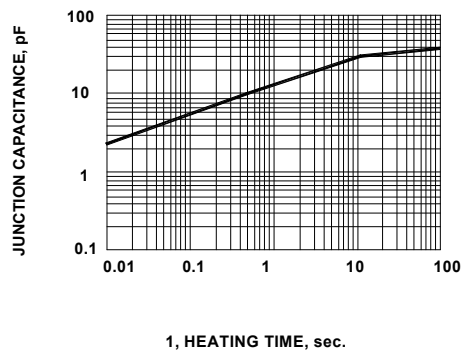


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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