

DF005M THRU DF10M

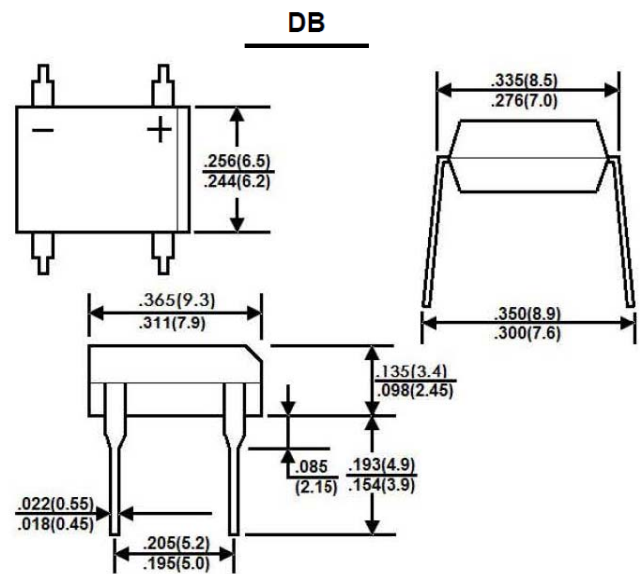
MINIATURE GLASS PASSIVATED SINGLE-PHASE-BRIDGE RECTIFIERS

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 Darta

- 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)

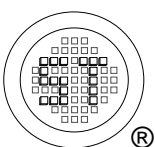
Absolute Maximum Ratings and Characteristics

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 $T_A = 40\text{ °C}^2$	$I_{F(AV)}$	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 $T_A = 25\text{ °C}$ at Rated DC Blocking Voltage Per Leg $T_A = 125\text{ °C}$	I_R	5 500							μA
Rating for Fusing ($t < 8.35\text{ ms}$)	I^2t	10							A^2sec
Typical Junction Capacitance Per Leg ¹⁾	C_J	25							pF
Typical Thermal Resistance Per Leg ²⁾	$R_{\theta JA}$	40							°C/W
	$R_{\theta JL}$	15							
Operating junction and storage temperature range	T_J, T_{Stg}	-55 to +150							°C

¹⁾ Measured at 1MHz and applied reverse voltage of 4 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 13 mm) copper pads.



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FIG.1-DERATING CURVE OUTPUT RECTIFIED CURRENT

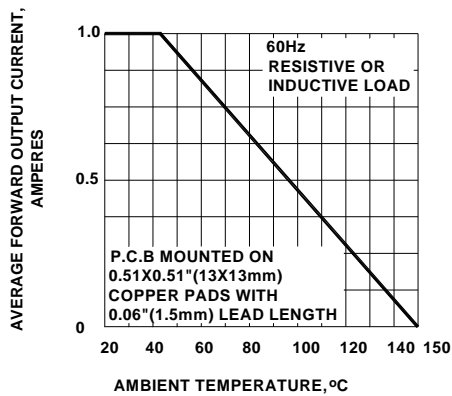


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER LEG

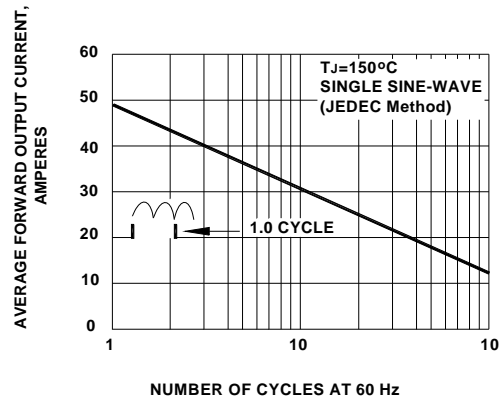


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER LEG

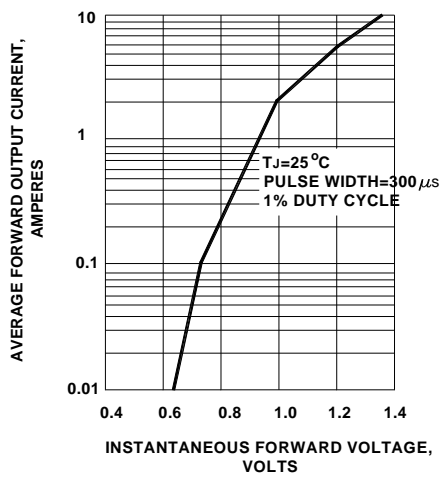


FIG.4-TYPICAL REVERSE LEAKAGE
CHARACTERISTICS PER LEG

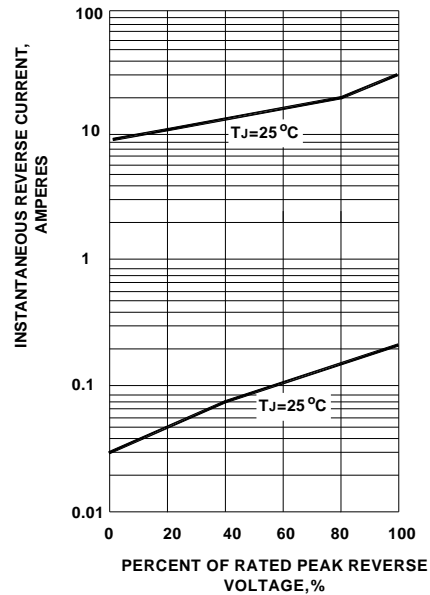


FIG.5-TYPICAL JUNCTION
CAPACITANCE PER LEG

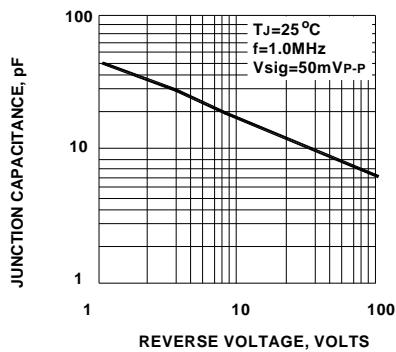
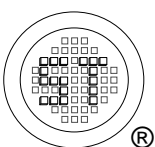
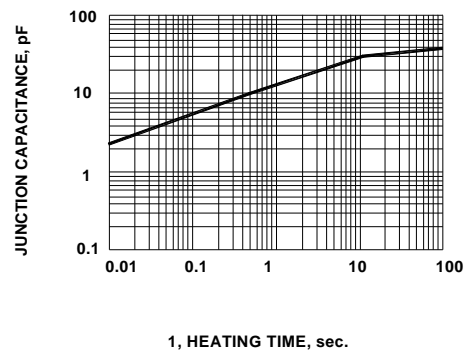


FIG.6-TYPICAL TRANSIENT THERMAL
IMPEDANCE



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