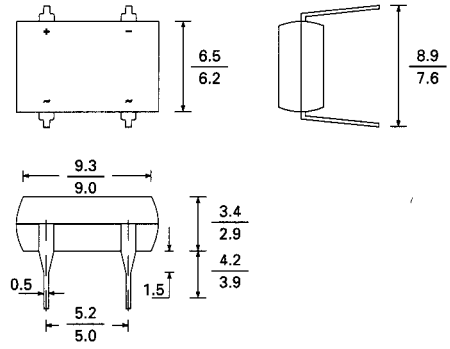
DF 005M ...DF 10M
MINIATURE GLASS PASSIVATED SINGLE - PHASE - BRIDGE RECTIFIER

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. (2.3 Kg) tension

Case Style DFM

2 : 1



Mechanical Rating

- Case: Molded plastic body over passivated junctions
- Terminals: Plated lead solderable per MIL-STD-750, Method 2026
- Polarity: polarity sysbols 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.

Characteristic	Symbol	DF 005M	DF 01M	DF 02M	DF 04M	DF 06M	DF 08M	DF 10M	Unit
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 Suprimposed on rated load (JEDEC Method)	I_{FSM}	50.0							Amp
Rating for using (t<8.35ms)	I^2t	10.0							A^2SEC
Maximum instantaneous forward voltage drop per leg at 1.0A	V_F	1.1							Volts
Maximum reverse current at rated TA =25 °C DC blocking voltage per leg TA =125 °C	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)	$R_{\O JA}$ $R_{\O JL}$	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 0.5X0.5" (13X13mm) copper pads

DF 005M ...DF 10M
MINIATURE GLASS PASSIVATED SINGLE - PHASE - BRIDGE RECTIFIER

FIG. 1-DERATING CURVE OUTPUT RECTIFIED CURRENT

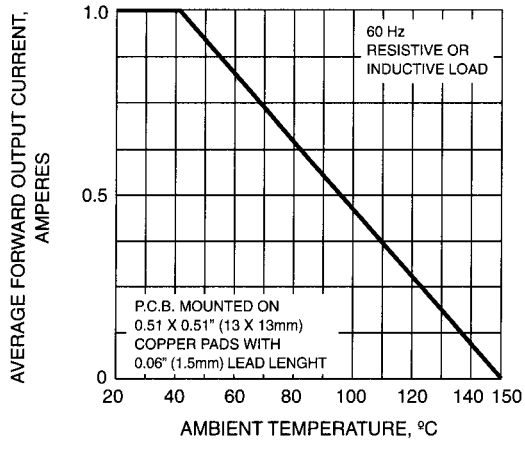


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

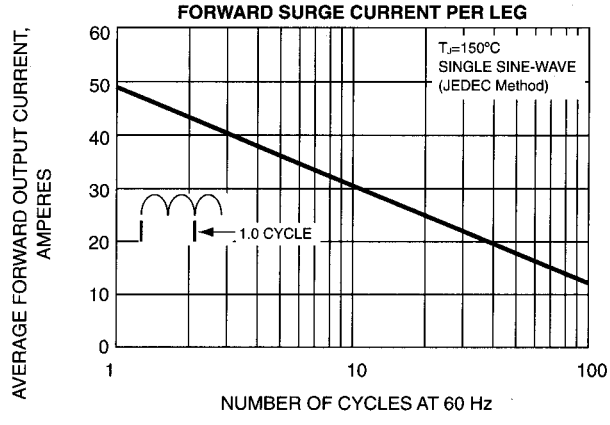


FIG. 3-TYPICAL FORWARD CHRACTERISTICS PER LEG

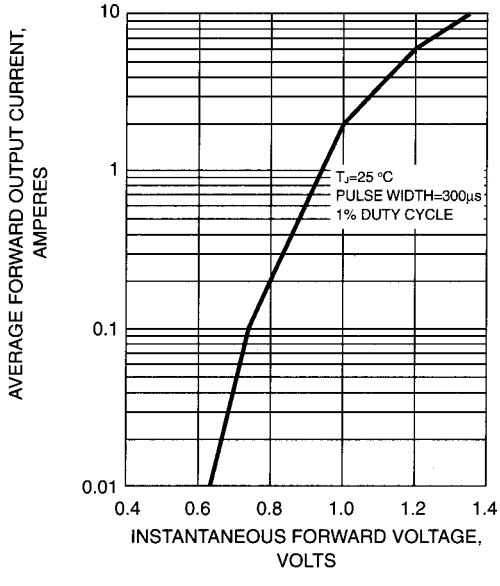


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

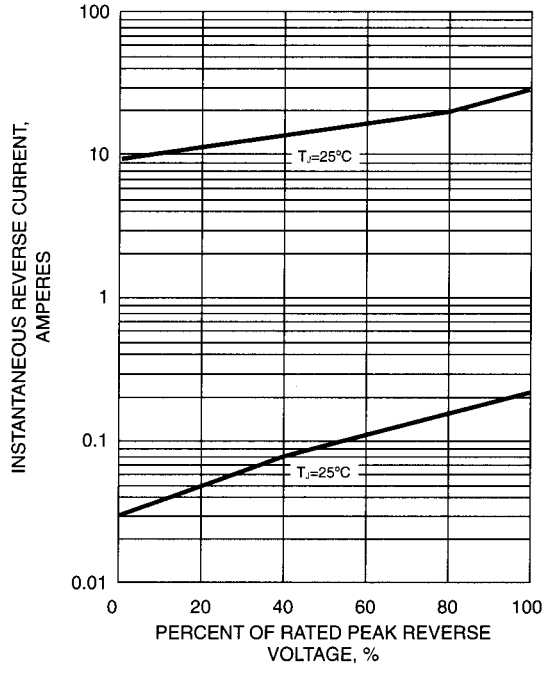


FIG. 5-TYPICAL JUNCTION CAPACITANCE PER LEG

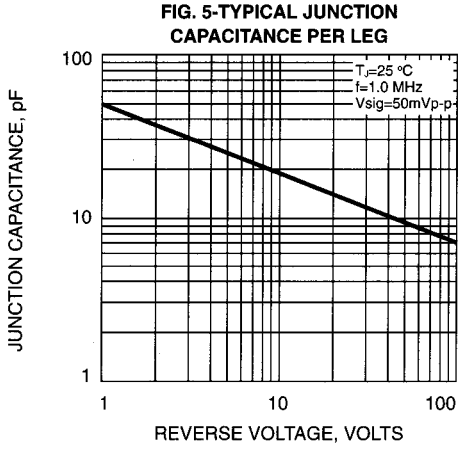


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE