



SINGLE-PHASE BRIDGE RECTIFIER

DF005	DB101
THRU	THRU
DF10	DB107

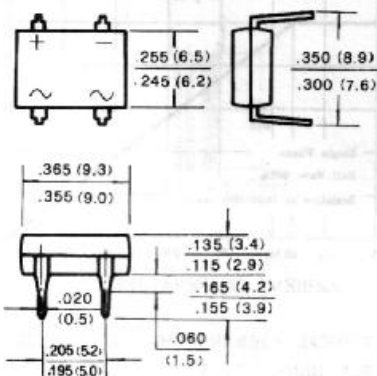
FEATURES

- Glass passivated chip junctions
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed:
260°C/10 second at 5 lbs. (2.3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Terminal, Lead solderable per MIL-STD-202E method 208C
- Polarity: Molded on body
- Mounting position: Any
- Weight: 0.04 ounce, 1.0 gram

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 1.0 Ampere



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%.

	SYMBOLS	DF005 DB101	DF01 DB102	DF02 DB103	DF04 DB104	DF06 DB105	DF08 DB106	DF10 DB107	UNITS
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 Rectified Output Current, 0.06" (1.5mm) lead length at $T_A = 40^\circ\text{C}$ (Note 2)	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I_{FSM}	50							Amps
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	10							A^2s
Maximum Instantaneous Forward Voltage Drop per bridge element at 1.0A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	I_R	$T_A = 25^\circ\text{C}$ 10							μAmps
		$T_A = 125^\circ\text{C}$ 0.5							mAmps
Typical Junction Capacitance (Note 1)	C_J	25							pF
Typical Thermal Resistance (Note 2)	R_{JA}	40							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150							$^\circ\text{C}$

NOTES:

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

RATINGS AND CHARACTERISTIC CURVES DF005 DB101 THRU DF10 DB107

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

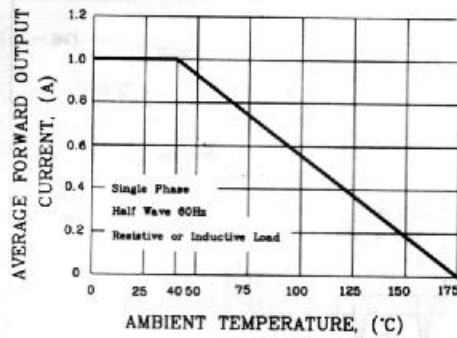


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

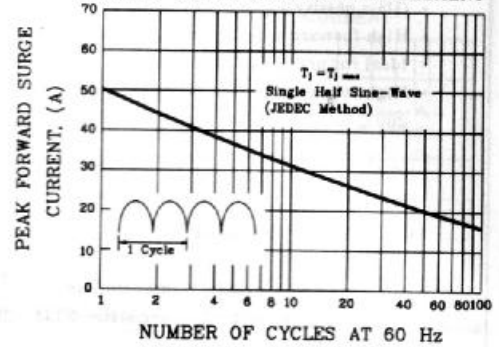


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

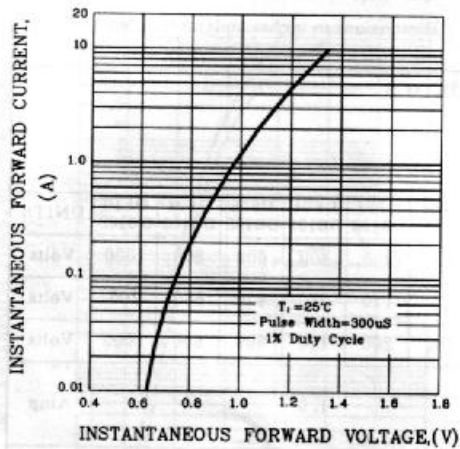


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

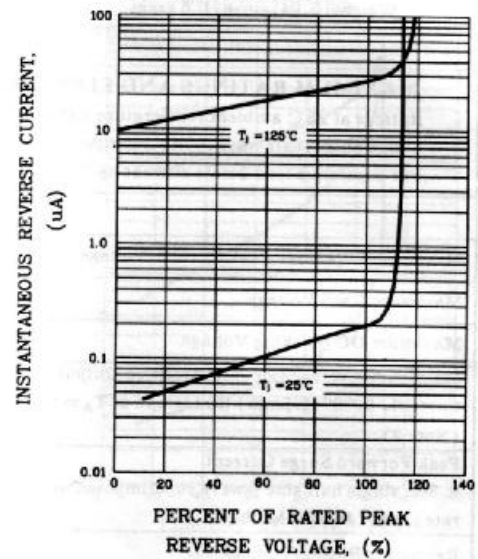


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT

