



SINGLE-PHASE BRIDGE RECTIFIER

DF005 THRU DF10
DB101 THRU DB107

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

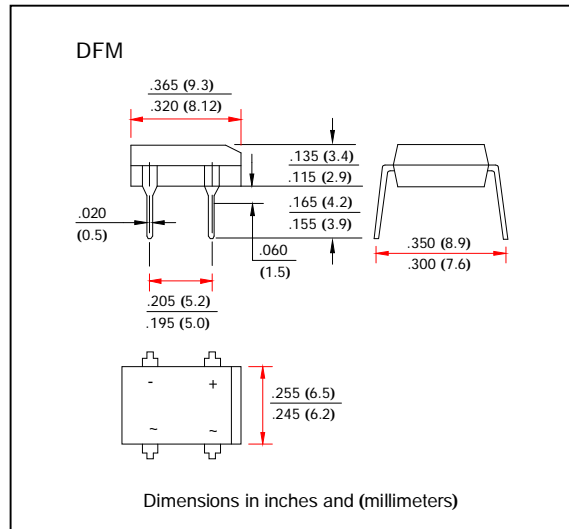
1.0 Ampere

FEATURES

- Glass passivated chip junction
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed:
260°C/10 seconds at terminals

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Terminals solderable per MIL-STD-202E method 208C
- Polarity: Molded 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
- 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	UNIT	
Maximum Reverse Peak Repetitive 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							Amps	
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 1.0A	V_F	1.1							Volts	
Maximum Reverse Current at rated DC blocking voltage per element	$T_A=25^\circ\text{C}$	I_R							5	μAmps
	$T_A=125^\circ\text{C}$								0.5	mAmps
Typical Junction Capacitance (Note 1)	C_J	25							pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							$^\circ\text{C/W}$	
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$	

- Notes:**
1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
 2. Unit mounted on P.C.B. with 0.51" x 0.51" (13x13mm) copper pads.



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RATINGS AND CHARACTERISTIC CURVES DF005 THRU DF10 DB101 THRU DB107

FIG. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

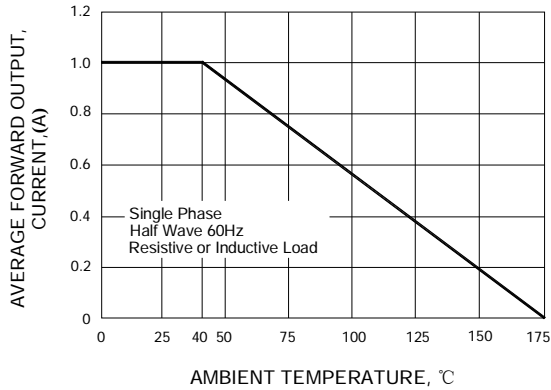


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

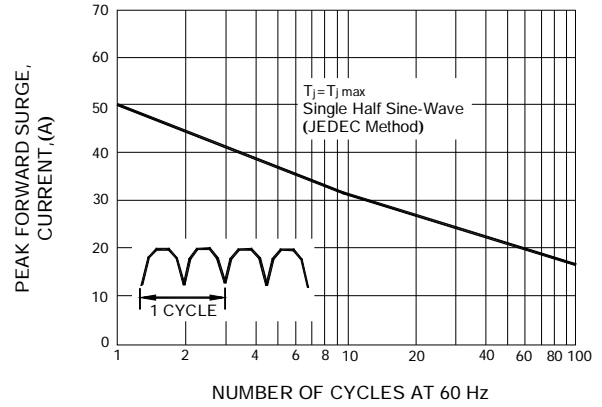


FIG. 3- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

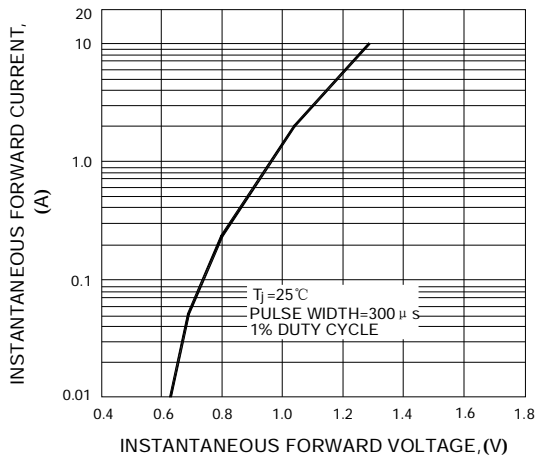


FIG. 4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

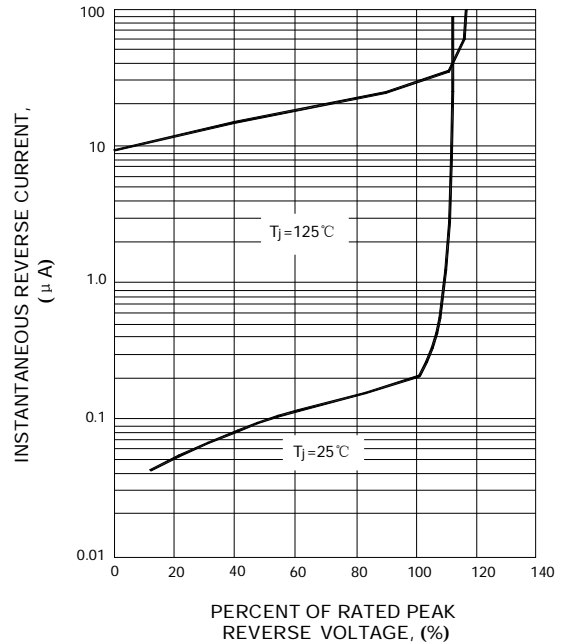


FIG. 5- TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

