



SINGLE PHASE BRIDGE RECTIFIER

BR805 THRU BR810

**VOLTAGE RANGE
CURRENT**

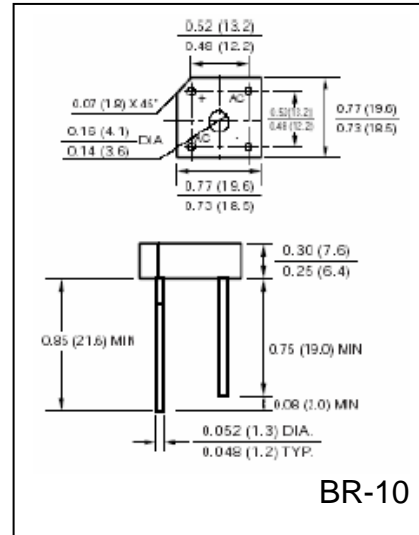
**50 to 1000 Volts
8.0 Ampere**

FEATURES

- UL recognized
- High forward surge current capability
- High isolation voltage from case to lugs
- High temperature soldering guaranteed:
260°C / 10 seconds

MECHANICAL DATA

- Case: Molded plastic body
- Terminal: Lead solderable per MIL-STD-202E method 208C
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #6 screw, 5 in-lbs Torque max.
- Weight: 0.20 ounce, 5.62 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	BR805	BR81	BR82	BR84	BR86	BR88	BR810	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 Rectified Current,	At $T_C = 50^\circ\text{C}$ (Note 2)	$I_{(AV)}$	8.0							Amps	
	At $T_C = 100^\circ\text{C}$ (Note 2)		6.0								
	At $T_A = 50^\circ\text{C}$ (Note 3)		6.0								
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}					125				Amps
Rating for Fusing ($t < 8.3\text{mS}$)		I^2t					64				A^2s
Maximum Instantaneous Forward Voltage drop per Bridge element 4.0A		V_F					1.1				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$T_A = 25^\circ\text{C}$	I_R					10				μA
	$T_A = 100^\circ\text{C}$						1.0				mA
Isolation Voltage from case to lug		V_{ISO}					2500				Volts
Typical Thermal Resistance (Note 1)		$R_{\theta Jc}$					6.0				$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range		T_J					(-55 to +125)			$^\circ\text{C}$	
Storage Temperature Range		T_{STG}					(-55 to +150)			$^\circ\text{C}$	

Notes:

1. Unit mounted on 9" x 3.5" x 4.6 (23cm x 9cm x 11.8cm) AL finned plate
2. Unit mounted on 8.7" x 8.7" x 0.24" (22cm x 22cm x 0.6cm) AL plate.
3. Unite mounted on PC board 0.375" (9.5mm) lead length with 0.47" x 0.47" (12mm x 12mm) copper pads



RATINGS AND CHARACTERISTIC CURVES BR805 THRU BR810

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

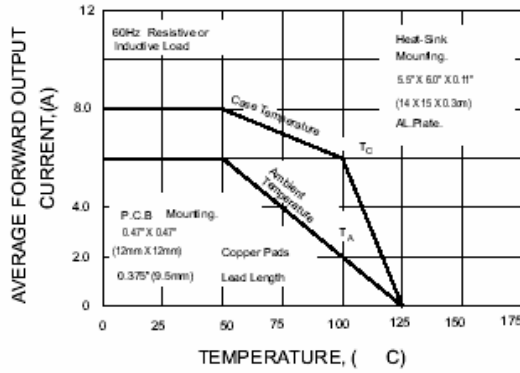


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

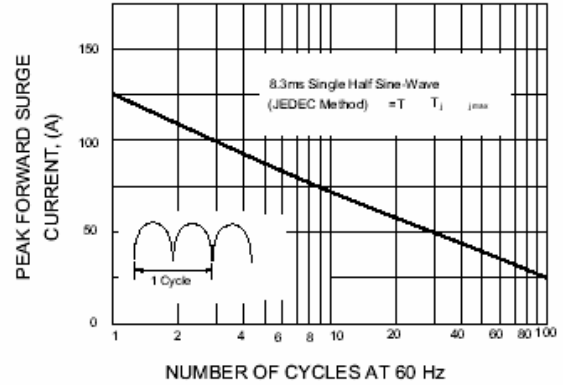


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

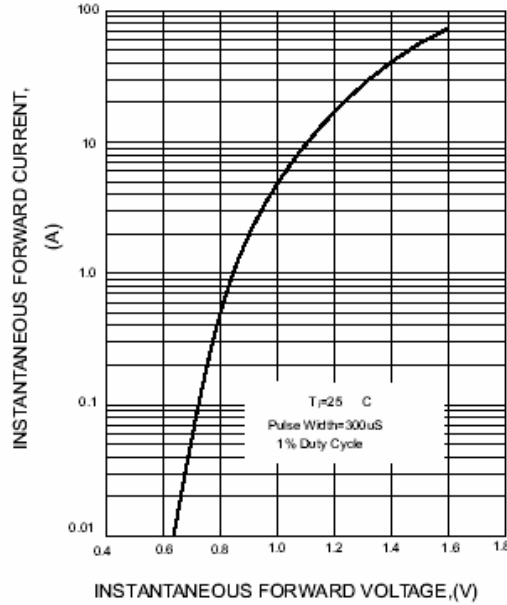


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

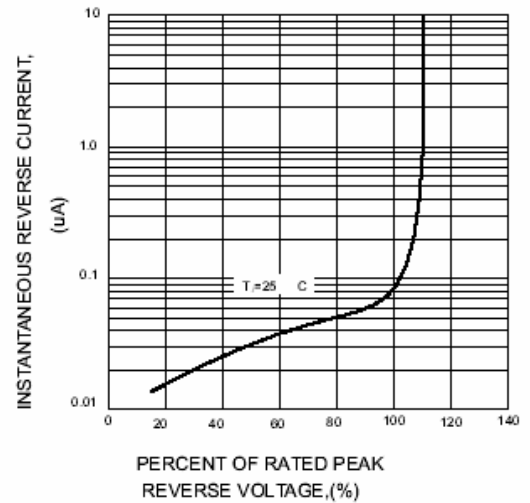


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

