



## SINGLE PHASE BRIDGE RECTIFIER

**BR1005 THRU BR1010**

**VOLTAGE RANGE  
CURRENT**

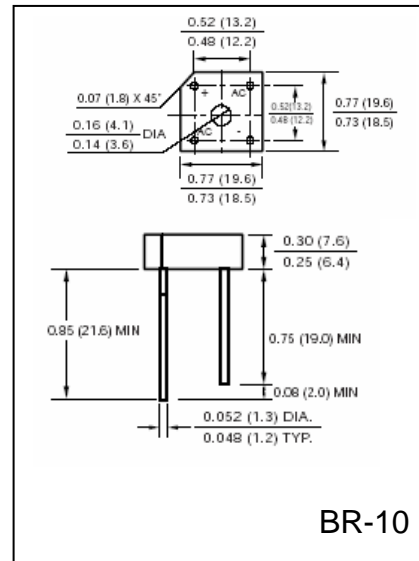
**50 to 1000 Volts  
10.0 Ampere**

### 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	BR 1005	BR 101	BR 102	BR 104	BR 106	BR 108	BR 1010	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 1)	10.0							Amps	
	At $T_C = 100^\circ\text{C}$	6.0								
	At $T_A = 50^\circ\text{C}$ (Note 2)	6.0								
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150							Amps	
Rating for Fusing ( $t < 8.3\text{mS}$ )	$I^2t$	93							$\text{A}^2\text{s}$	
Maximum Instantaneous Forward Voltage drop per Bridge element 5.0A	$V_F$	1.1							Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$I_R$	$T_A = 25^\circ\text{C}$	10							$\mu\text{A}$
		$T_A = 100^\circ\text{C}$	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. 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 BR1005 THRU BR1010

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

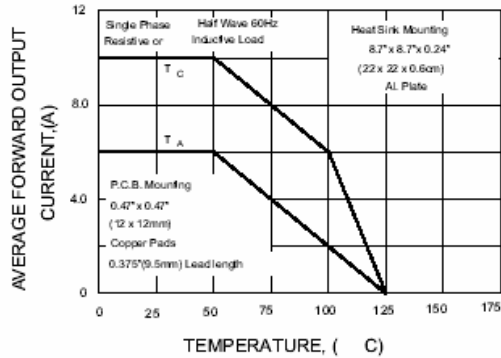


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

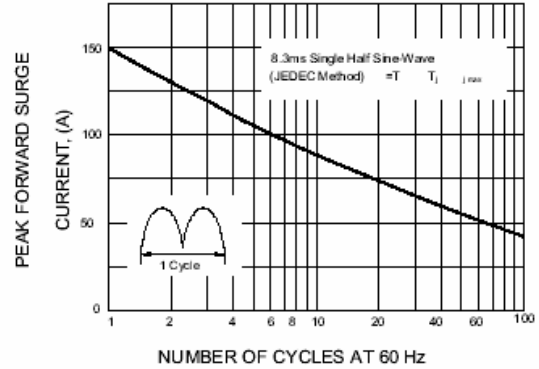


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

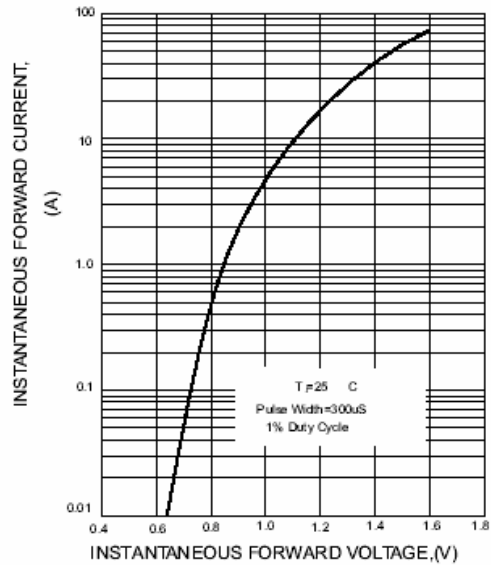


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

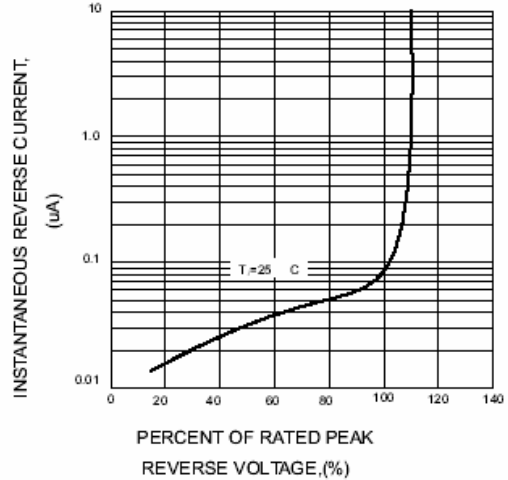


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

