



SINGLE PHASE BRIDGE RECTIFIER

BR305 THRU BR310

VOLTAGE RANGE
CURRENT

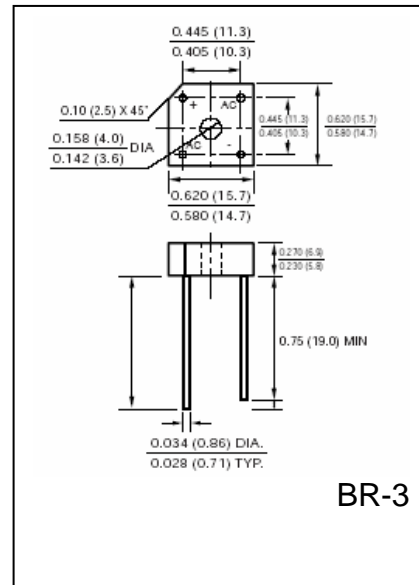
50 to 1000 Volts
3.0 Ampere

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: 0.0093 ounce, 2.62 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	BR305	BR31	BR32	BR34	BR36	BR38	BR310	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)	$I_{(AV)}$	3.0						Amps	
	At $T_A = 25^\circ\text{C}$ (Note 2)		2.0							
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}	60						Amps	
Rating for Fusing ($t < 8.3\text{mS}$)		I^2t	15						A^2s	
Maximum Instantaneous Forward Voltage drop per Bridge element 1.5A		V_F	1.0						Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element		I_R	10						μA	
$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$			0.5						mA	
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)		C_J	20						pF	
Typical Thermal Resistance (Note 2)		$R_{\theta Jc}$	12						$^\circ\text{C}/\text{W}$	
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 4.0" x 4.0" x 0.11" thick (10.5cm x 10.5cm x 0.3cm) AL plate
2. Unite mounted on PC board 0.375" (9.5mm) lead length with 0.5" x 0.5" (12mm x 12mm) copper pads



RATINGS AND CHARACTERISTIC CURVES BR305 THRU BR310

FIG.1-DERATING CURVE FOR OUTPUT DERATING CURVE

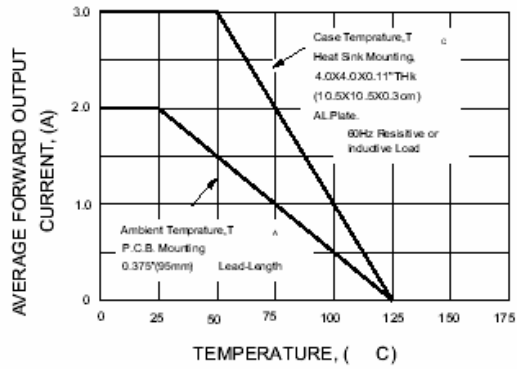


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

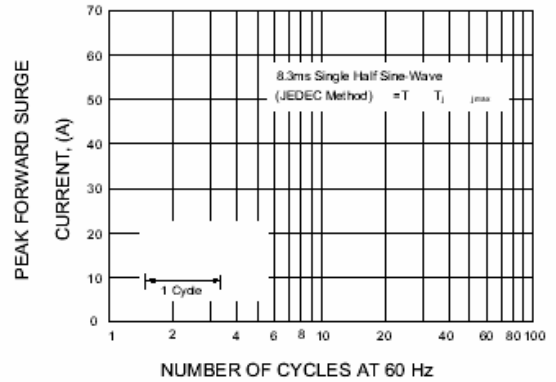


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

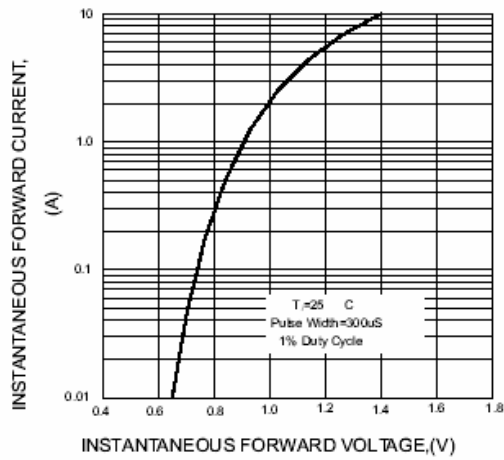


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

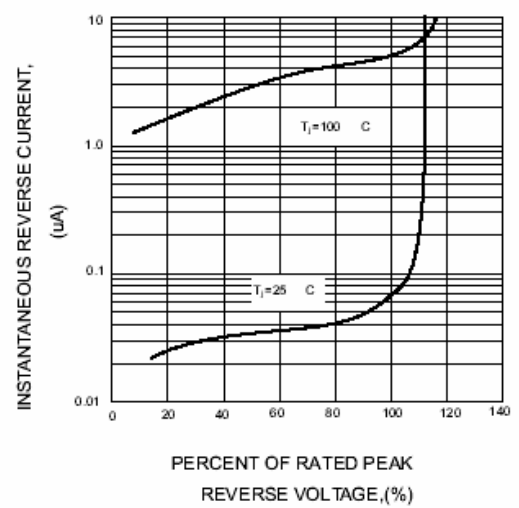


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

