



SINGLE PHASE BRIDGE RECTIFIER

BR3505 THRU BR3510

**VOLTAGE RANGE
CURRENT**

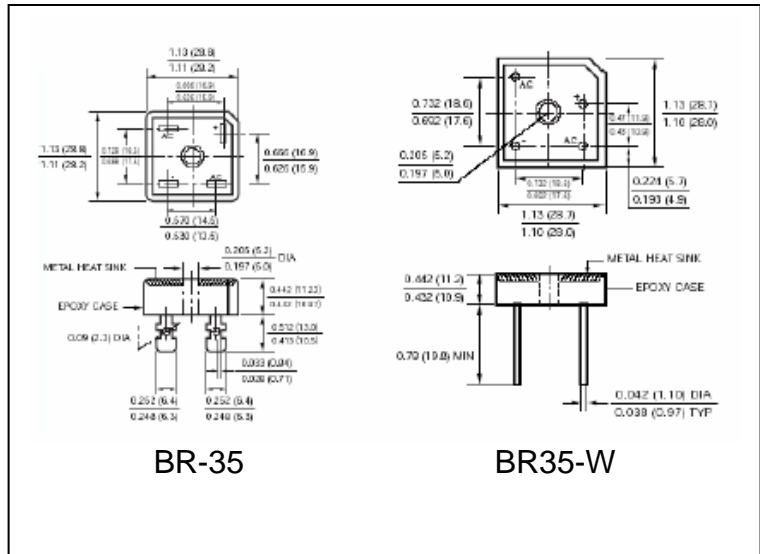
**50 to 1000 Volts
35.0 Ampere**

FEATURES

- UL recognized
- High forward surge current capability
- Integrally molded heatsink provides very low Thermal resistance
- High isolation voltage from case to lugs
- High temperature soldering guaranteed: 260°C / 10 seconds
- Available in either lug package (BR3505) or wire lead package (BR3505W)

MECHANICAL DATA

- Case: Molded plastic body
- Terminal: Plated 0.25" (6.35mm) lug or Plated 0.040" (1.02mm) diameter lead
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #10 screw, 20 in-lbs Torque max.
- Weight: 0.66 ounce, 18.7 gram – BR-35
0.61 ounce, 17.4 gram – BR-35W



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 3505	BR 351	BR 352	BR 354	BR 356	BR 358	BR 3510	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 and 2)	$I_{(AV)}$	35							Amps	
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	400							Amps	
Rating for Fusing ($t < 8.3\text{mS}$)	I^2t	664							A^2s	
Maximum Instantaneous Forward Voltage drop per Bridge element 17.5A	V_F	1.1							Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	I_R	10							$T_A = 25^\circ\text{C}$	μA
									$T_A = 100^\circ\text{C}$	mA
Isolation Voltage from case to lug	V_{ISO}	2500							Volts	
Typical Thermal Resistance (Note 1 and 2)	$R_{\theta Jc}$	2.0							$^\circ\text{C}/\text{W}$	
Operating Junction Temperature Range	T_J	(-65 to +150)							$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	(-65 to +150)							$^\circ\text{C}$	

Notes:

1. Unit mounted on 9" x 3.5" x 4.6" (23cm x 9cm x 11.9cm) AL finned plate
2. Bolt down on heat-sink with silicon thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw



RATINGS AND CHARACTERISTIC CURVES BR3505 THRU BR3510

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

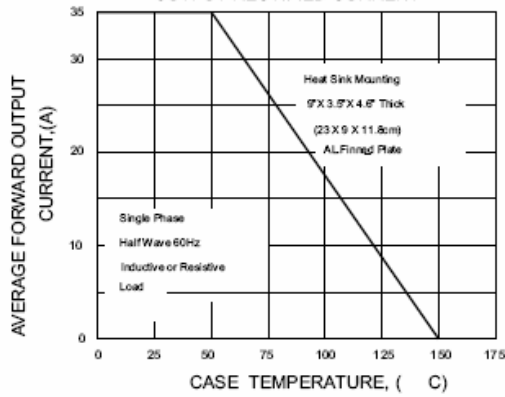


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

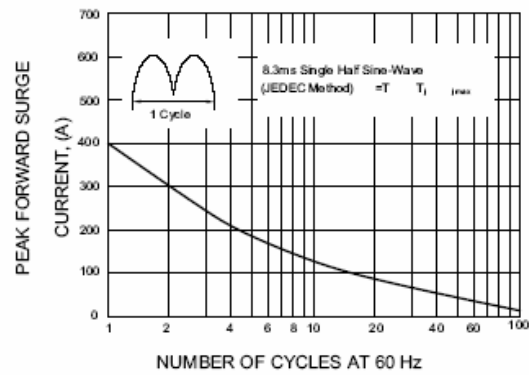


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

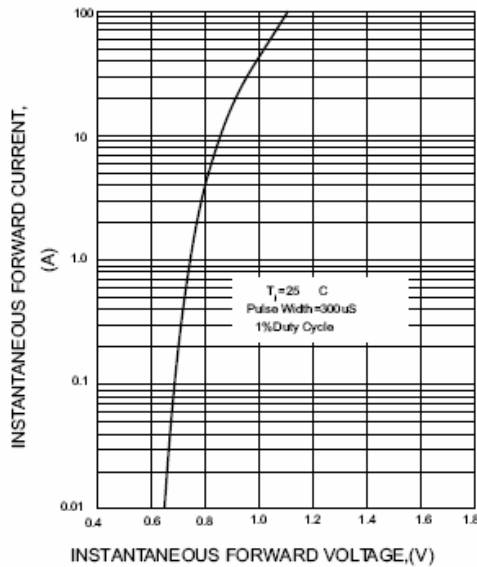


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

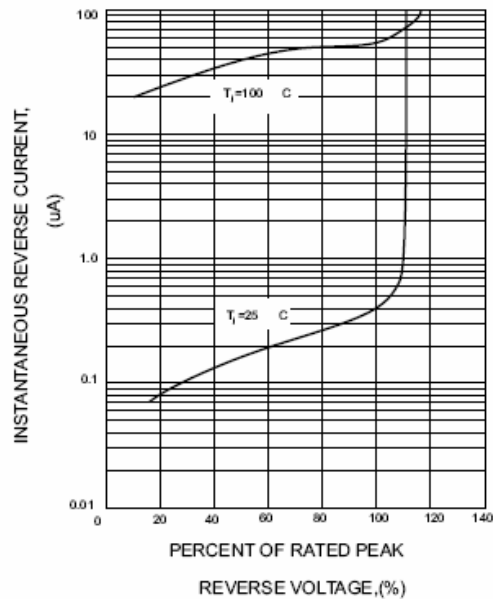


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT

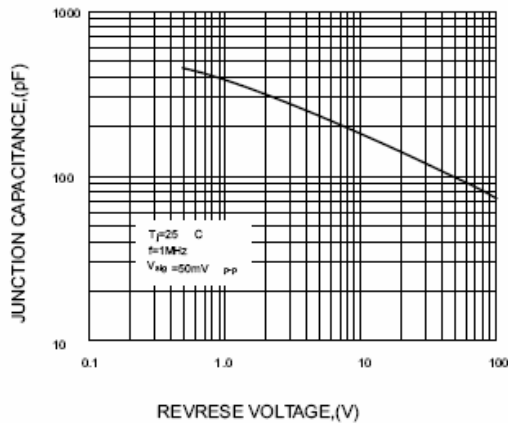


FIG.6-MAXIMUM POWER DISSIPATION

