



MASTER INSTRUMENT CORPORATION

SINGLE-PHASE BRIDGE RECTIFIER BR4005 THRU BR4010

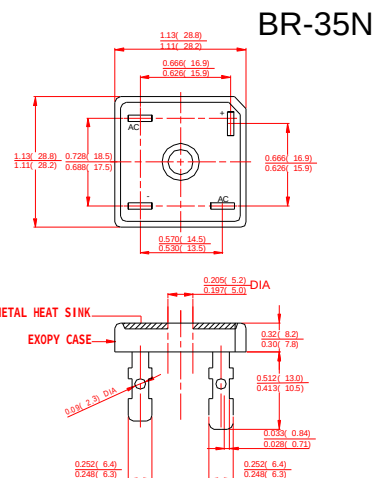
VOLTAGE RANGE 50 to 1000 Volts
CURRENT 40 Amperes

FEATURES

- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capability
- Integrally molded heatsink provide very low thermal resistance
- High isolation voltage from case to leads
- High temperature soldering guaranteed: 260°C/10 second, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Molded plastic body
- Terminal: Plated lead 0.25"(6.35mm) lugs.
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #10 screw, 20 in.-lbs torque max.
- Weight: 0.55ounce, 15.6 grams



Dimensions in inches and (millimeters)

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	BR4005	BR401	BR402	BR404	BR406	BR408	BR4010	UNITS	
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 Output Current, at T _C =55 °C(See FIG.1)	I _(AV)	40							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<8.3ms)	I ² T	664							A ² S	
Maximum Instantaneous Forward Voltage at 20.0A	V _F	1.1							Volts	
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25 °C	I _R	10							μAmps
	T _A =100 °C		1.0							mAmps
Isolation Voltage from case to leads	V _{ISO}	2500							V _{AC}	
Typical Thermal Resistance (Note 1,2)	R _{θJC}	1.4							°C/W	
Operating Temperature Range	T _J	-55 to +150							°C	
Storage Temperature Range	T _{STG}	-55 to +150							°C	

NOTES:

- Unit mounted on 9"×3.5"×4.6" thick (23cm×9cm×11.8cm) Al. plate.
- Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.



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RATINGS AND CHARACTERISTIC CURVES BR4005 THRU BR4010

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

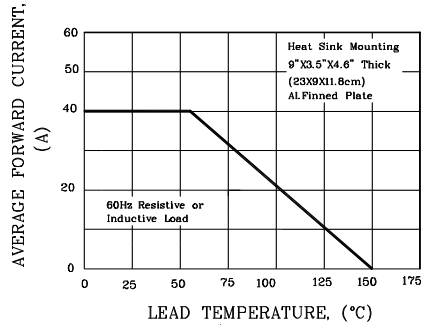


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

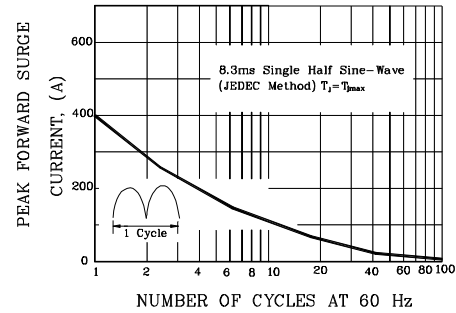


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

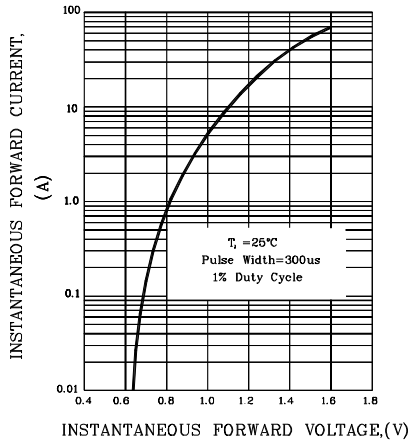


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

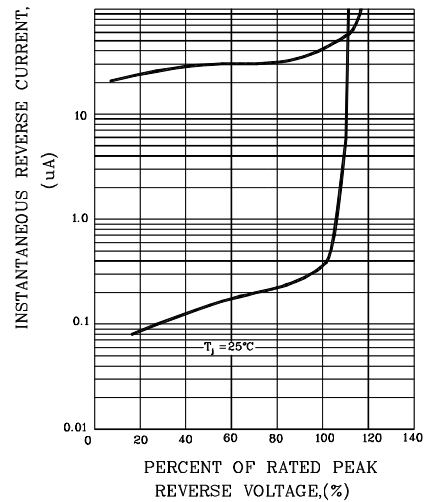


FIG.5-TYPICAL JUNCTION CAPACITANCE

