MASTER INSTRUMENT CORPORATION

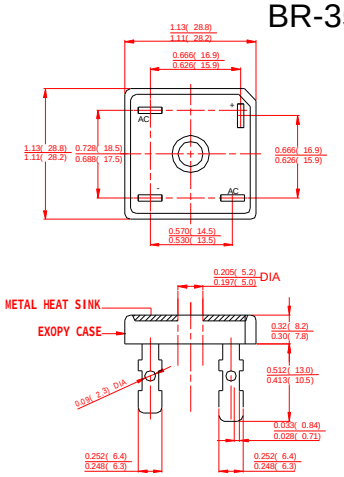
SINGLE-PHASE BRIDGE RECTIFIER
BR4005 THRU BR4010

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.

BR-35N



Dimensions in inches and (millimeters)

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

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℃(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^2T	664							A^2S
Maximum Instantaneous Forward Voltage at 20.0A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage, T_A=25℃	I_R	10							μAmps
Maximum DC Reverse Current at rated DC blocking voltage, T_A=100℃	I_R	1.0							mAmps
Isolation Voltage from case to leads	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1,2)	$R_{\theta JC}$	1.4							℃/W
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

NOTES:

1. Unit mounted on 9"×3.5"×4.6" thick (23cm×9cm×11.8cm) Al. plate.
2. 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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SINGLE-PHASE BRIDGE RECTIFIER BR4005 THRU BR4010	VOLTAGE RANGE 50 to 1000 Volts CURRENT 40 Amperes

RATINGS AND CHARACTERISTIC CURVES BR4005 THRU BR4010

FIG.1–TYPICAL FORWARD CURRENT DERATING CURVE

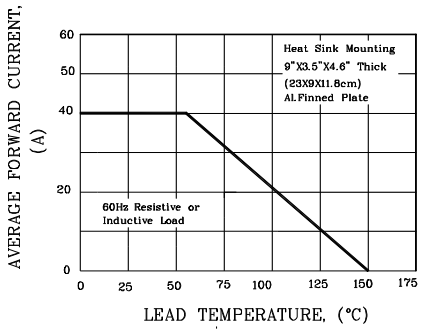


FIG.2–MAXIMUM NON–REPETITIVE PEAK FORWARD SURGE CURRENT

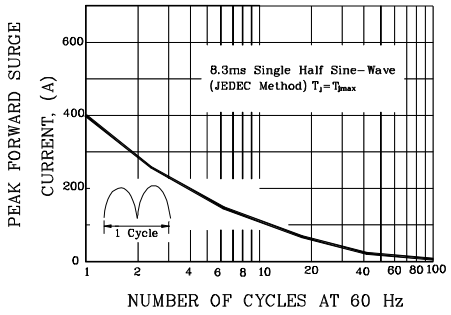


FIG.3–TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

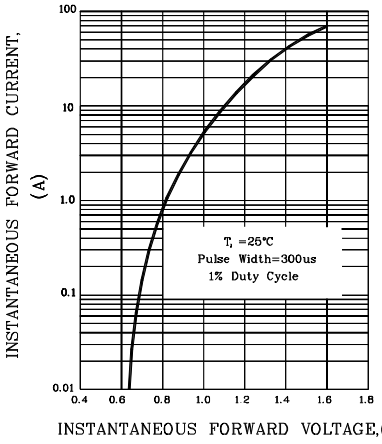


FIG.4–TYPICAL REVERSE CHARACTERISTICS

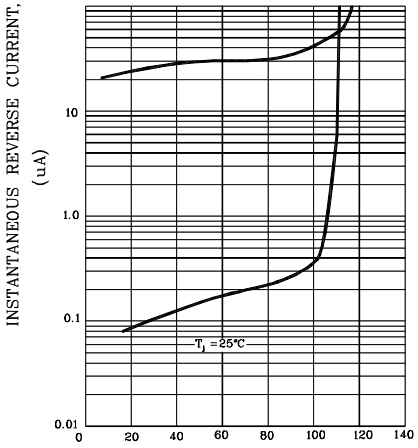


FIG.5–TYPICAL JUNCTION CAPACITANCE

