



MASTER INSTRUMENT CORPORATION

BR1005 THRU BR1010

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 10 Amperes

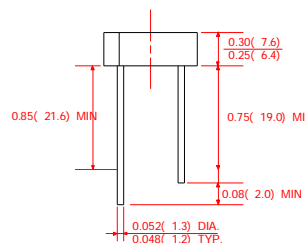
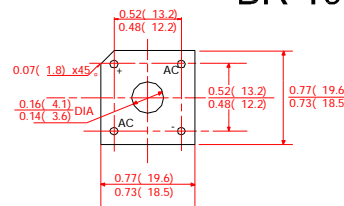
FEATURES

- l Low cost
- l This series is UL recognized under component index, file number E127707
- l High forward surge current capability
- l Ideal for printed circuit board
- l High isolation voltage from case to leads
- l High temperature soldering guaranteed: 260°C/10 second, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- l Case: Molded plastic body
- l Terminal: Lead solderable per MIL-STD-202E method 208C.
- l Polarity: Polarity symbols molded on case
- l Mounting: Thru hole for #6 screw, 5 in.-lbs torque max.
- l Weight: 0.20ounce, 5.62 grams

BR-10



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	BR1005	BR101	BR102	BR104	BR106	BR108	BR1010	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 =50°C (Note1)	10.0							Amps
	T _C =100°C (Note1)	6.0							
	T _A =50°C (Note2)	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<8.3ms)	I ² T	93							A ² S
Maximum Instantaneous Forward Voltage at 5.0A	V _F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25 °C	5.0							μAmps
	T _A =150°C	1.0							mAmps
Isolation Voltage from case to leads	V _{ISO}	2500							V _{AC}
Typical Thermal Resistance (Note 1)	R _{θJC}	6.0							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

NOTES:

1. Unit mounted on 8.7"×8.7"×0.24" thick (22×22×0.6mm) Al. plate.
2. Unit mounted on P.C.B at 0.375" (9.5mm) lead length with 0.47"×0.47" (12×12mm) copper pads.



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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

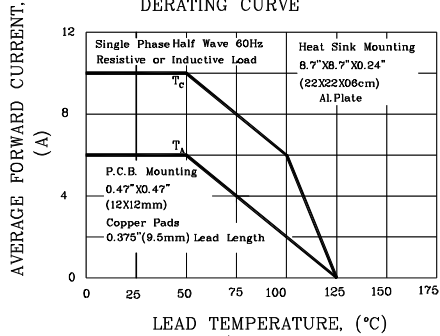


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

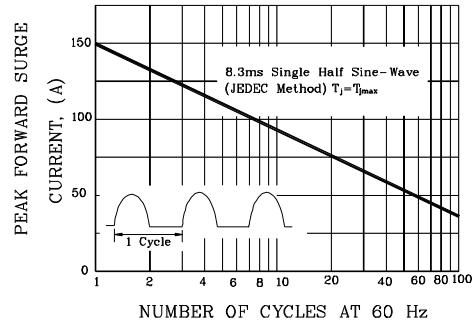


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

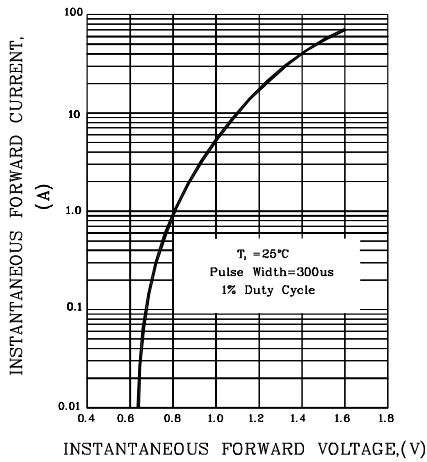


FIG.4-TYPICAL REVERSE CHARACTERISTICS

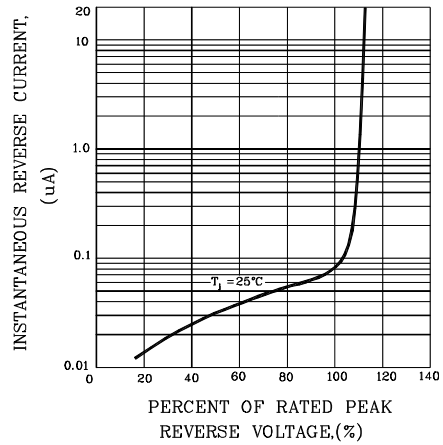


FIG.5-TYPICAL JUNCTION CAPACITANCE

