SINGLE PHASE BRIDGE RECTIFIER

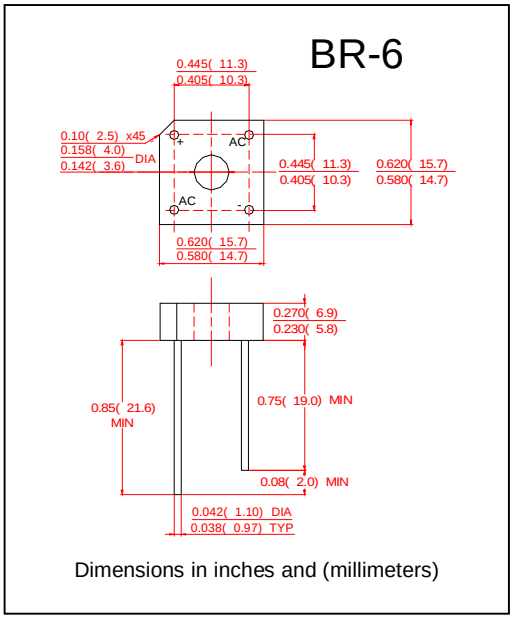
FBR605 THRU FBR610

VOLTAGE RANGE **50 to 1000 Volts**

CURRENT **6.0 Ampere**

FEATURES

- Low cost
- High forward surge current capacity
- Fast switching high efficiency
- High temperature soldering guaranteed: 260^{O}C / 10 seconds, at 5 lbs. (2.3kg) tension.



Dimensions in inches and (millimeters)

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: 0.13 ounce, 3.66 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

		SYMBOLS	FBR605	FBR61	FBR62	FBR64	FBR66	FBR68	FBR610	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 Output Current, at	T_C = 50℃ (Note 1)	$I_{(AV)}$	6.0							Amps
	T_A = 25℃ (Note 2)		3.0							
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}	125							Amps
Rating for Fusing (t<8.3mS)		I^2t	64							A^2s
Maximum Instantaneous Forward Voltage drop per Bridge element at 3.0 A		V_F	1.2				1.3			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	T_A = 25℃	I_R	10							μA
	T_A = 100℃		1.0							mA
Maximum Reverse Recovery Time (Note3) T_J=25℃		T_{RR}	150				250	500		nS
Isolation Voltage from case to lug		V_{ISO}	2500							Volts
Typical Thermal Resistance (Note 1)		$R_{\theta Jc}$	8.0							^{O}C/W
Operating Temperature Rang		T_J	-55 to +150							^{O}C
Storage Temperature Rang		T_{STG}	-55 to +150							^{O}C

Notes:

1. Unit mounted on 6.0” x 5.5” x 0.11” thick (15×14×0.3cm) AL plate
2. Unit mounted on P.C. Board 0.375” (9.5mm) lead length with 0.47”×0.47” (12×12mm) copper pads.
3. Reverse Recovery test conditions: I_F=0.5A, I_R=0.5A, I_{RR}=0.25A

E-mail: sales@cnmic.com **Web Site: www.cnmic.com**

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RATINGS AND CHARACTERISTIC CURVES FBR605 THRU FBR610

FIG.1–DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

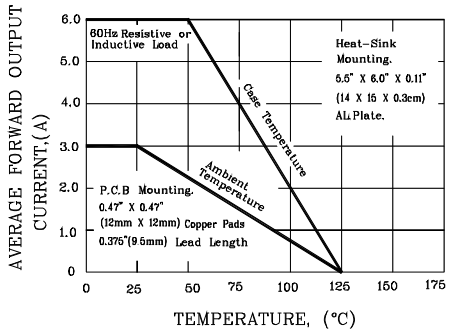

FIG.2–MAXIMUM NON–REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

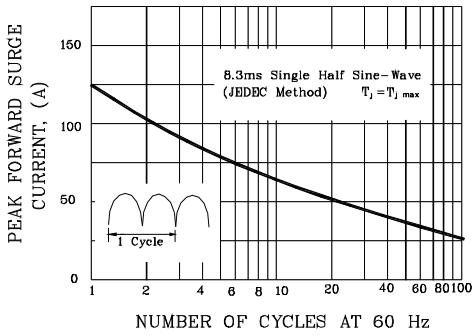

FIG.3–TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

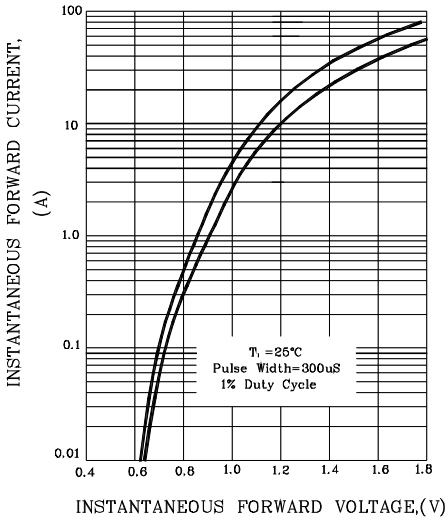

FIG.4–TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

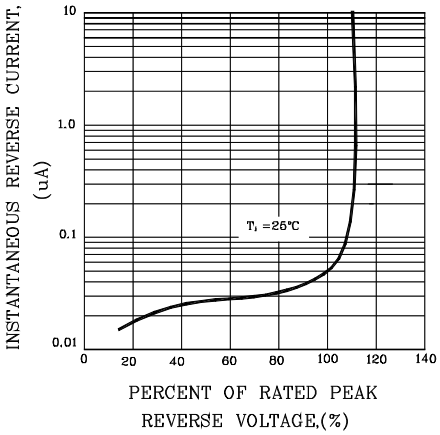

FIG.5–TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT