



# CSR-A & B SERIES

POWER REGULATOR CHIP

CSR-A/B

X10203

## INTRODUCTION

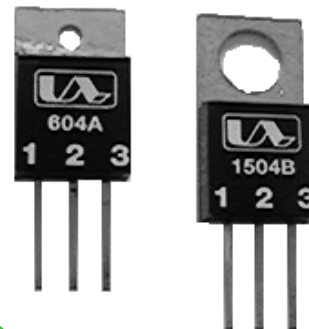
The CSR power regulator chip is a compact and robust unit, which is capable of controlling single-phase mains driven loads of up to 15A. Used in conjunction with variable resistance (potentiometer), the chip gives a fully adjustable output from zero to maximum voltage.

## APPLICATIONS

Suitable for conventional resistive heating elements such as ovens, quartz lamps, moulders and dryers. They are also suitable for many inductive loads such as, transformers, fans and motors.

## FEATURES

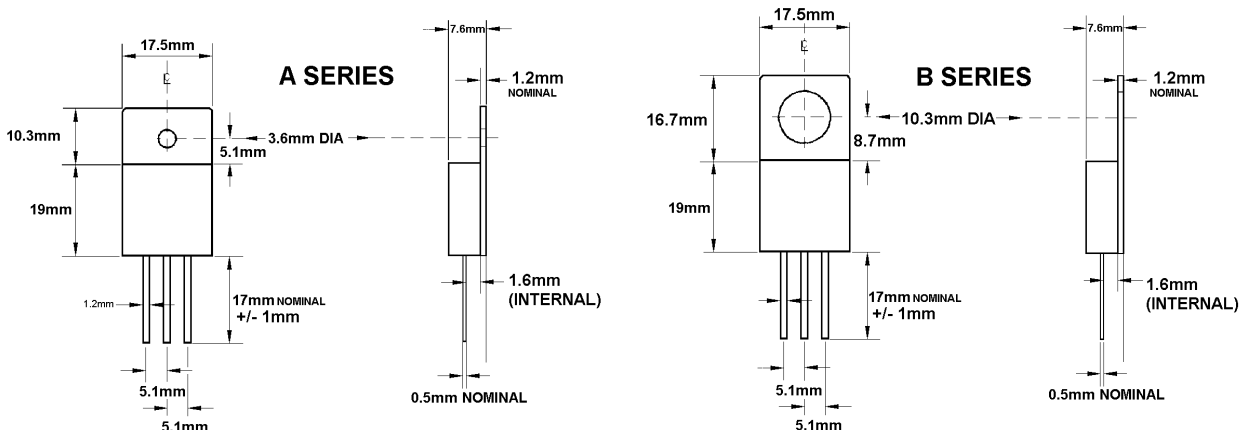
- Available in 6, 10, and 15A ratings.
- Flexibility of mounting.
- Easy installation (three pin connections).
- Isolated tab.
- Low cost.



RoHS Compliant

## INSTALLATION

### DIMENSIONS



### INSTALLATION

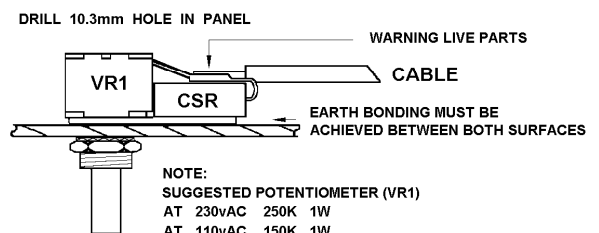
#### MOUNTING INSTRUCTIONS

"A" VERSION : FASTEN DIRECTLY TO HEATSINK FOR GOOD EARTH BONDING

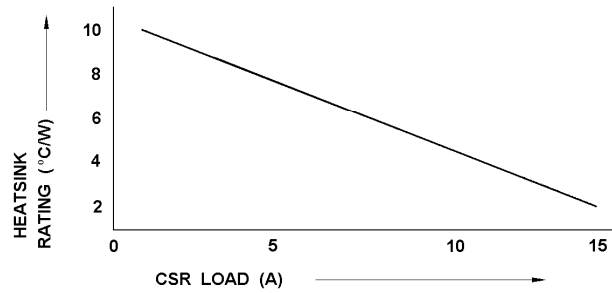
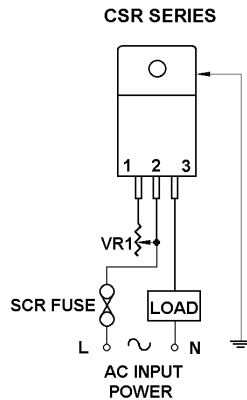
"B" VERSION : ATTACH DIRECTLY TO THE POTENTIOMETER TO THE PANEL (AS EXAMPLE - SIDE ELEVATION).

GENERAL NOTE: WHEN FIXING CSR TO ADDITIONAL HEATSINK, A SMEAR OF HEATSINK COMPOUND SHOULD BE USED BETWEEN THE BONDED SURFACES TO AID THERMAL DISSIPATION

NOTE: HEATSINK MUST BE EARTHED



## INSTALLATION



## SPECIFICATIONS

	UNIT	CSR 604A	CSR 604B	CSR 1004A	CSR 1004B	CSR 1504A	CSR 1504B
RMS max. on state current	A	6	6	10	10	15	15
Peak one cycle surge current	A	100	100	120	120	150	150
Maximum off leakage current	MA	----- 2 -----					
Minimum holding load current	MA	----- 30 -----					
RMS input voltage +/- 10% @ 50/60 Hz	V	----- 110/230 -----					
Repetitive peak voltage	V	----- 400 -----					
Total conduction phase angle (typical)	Degrees	----- 0 to 160° -----					
Controlled phase angle (typical)	Degrees	----- 30 to 160° -----					
Power transfer at max. current (efficiency)	%	----- 99 -----					
Tab surface operating range	°C	----- 0 to + 70 -----					
Storage temperature	°C	----- 0 to + 75 -----					
Insulation withstand capability	V	----- 1500 for 1 min. -----					
I <sup>2</sup> t limiting values for fusing	A <sup>2</sup> s	18	18	50	50	100	100

**NOTE: For supply voltages above 120V or 240V AC, the controller may not turn off fully.**

## FUSING

It is recommended that semiconductor, fast acting type fuses or circuit breakers (Semiconductor-MCB) be used for protection. On initial operation some loads may need an increased Factor of Safety (F of S) for unit and/or device protection. See SRA datasheet for further information.

## CE MARKING

This family carries a "CE" marking. These phase angle controllers need a suitable remote filter. For more information see recommendations section and contact our sales desk. See Declaration of Conformity.

## RECOMMENDATIONS

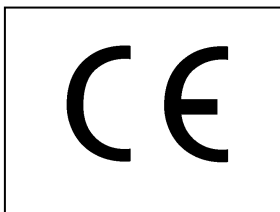
Other documents available on request, which may be appropriate for your application: -

CODE	IDENTITY	DESCRIPTION
X10229	RFI	Single Phase Filter recommendations: Addressing EMC Directive
X10213	ITA	Interaction: Uses for phase angle and for burst fire control.
X10255	SRA	Safety requirements: Addressing the Low Voltage Directive (LVD) including, Thermal data/cooling, Live parts warning, Earth requirements and fusing recommendations.
P01.1	COS	UAL Conditions of sale.

**NOTE:** It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.T. (formally I.E.E.) regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding installation and safety of electrical equipment. Specific installers should refer to local and national regulations.

## ORDER CODE:

State part number: CSR 'A' OR 'B' + (load rating) and (supply voltage)  
Optional extras include: knob, dial, heatsink compound.



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