



# CSR/604/1004/1504

## POWER REGULATOR CHIP

**CSR**  
**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 15 amps. Used in conjunction with variable resistance (potentiometer), the chip gives a fully adjustable output from zero to maximum voltage.

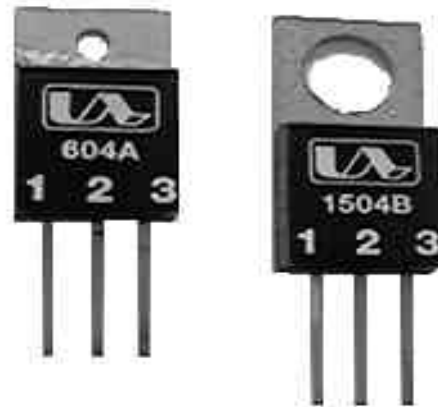
### APPLICATIONS

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

### FEATURES

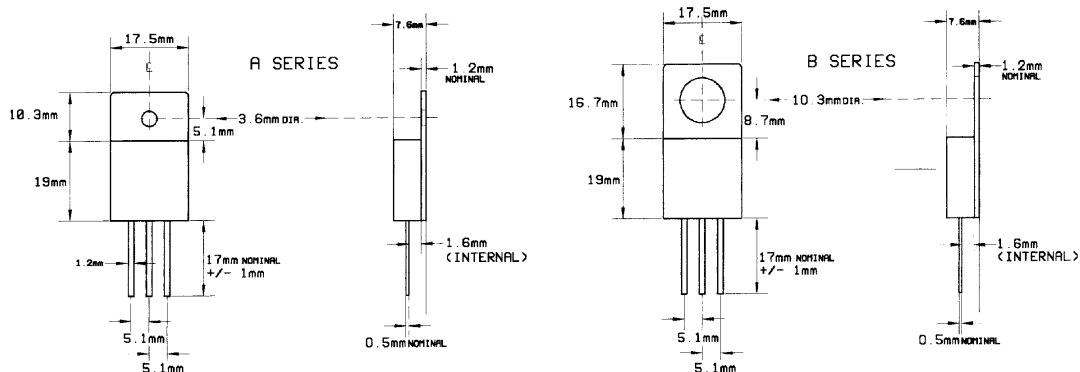
- Available in 6, 10, and 15 ampere rating.
- Flexibility of mounting.
- Easy installation (3 pin connections).
- Low hysteresis level.
- Low cost.

### EXAMPLES



### INSTALLATION

#### DIMENSIONS

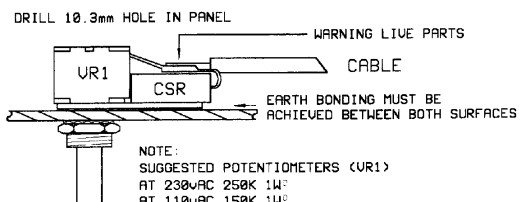


#### INSTALLATION

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

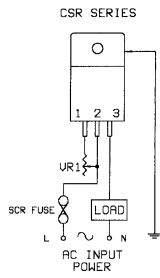
"B" VERSION: ATTACH DIRECTLY BY THE POTENTIOMETER TO THE PANEL (AS EXAMPLE - SIDE ELEVATION).

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

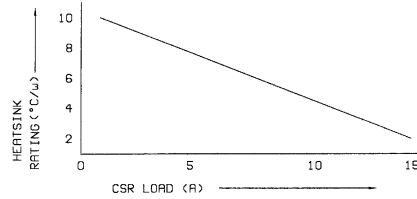


## INSTALLATION

### CONNECTIONS



### COOLING REQUIREMENTS



## SPECIFICATIONS

	UNIT	CSR	CSR	CSR	CSR	CSR	CSR
		604A	604B	1004A	1004B	1504A	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.	-----		

## FUSING:

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor - MCB) for unit protection. (See SRA Datasheet for further information).

## CE MARKING

This product family carries a "CE marking". These phase angle type controllers require a suitable remote filter. For information see recommendation section and contact our sales desk. (See Declaration of Conformity).

## RECOMMENDATION

Other documents available on request, which may be appropriate for your applications.

CODE	IDENTITY	DESCRIPTION
X10229	RFI	Filtering recommendations - addressing the 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 & Earthing requirements; Fusing recommendations.
AP02/4	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.E. wiring regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding safety of electrical equipment. (For International standards refer to I.E.C directive IEC 950).

**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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