

# Adjustable Slide Wirewound Rotary Power Resistors

**(BSR, BSQ) One-of-A-Kind Enclosure Application to Hundreds of Enclosures**

## ▶ Preview

Following market demands, Token Electronics provides enclosures to house unlimited combinations of resistors (DR or DQ Power Series) to meet design engineers and customer requirements.

Token's high current adjustable power BSR, BSQ resistor is one-of-a-kind enclosure application to hundreds of enclosures per mount housing various resistor packages. Our engineering staff can assist the customer in meeting their unique design needs.

These quality design features include all stainless steel grids and terminals, high temperature insulation, welded construction, end-frames with gussets for added mechanical strength. Slotted mounting holes for easy installation.

Also accommodates a flexible range of assembly options for convenient utilization and installation. BSQ Ribwound resistors are particularly useful where high energy is to be dissipated in the lower ohmic ranges. Replacements for many standard BSR round-wire resistors are available resulting in significant savings in space and cost.

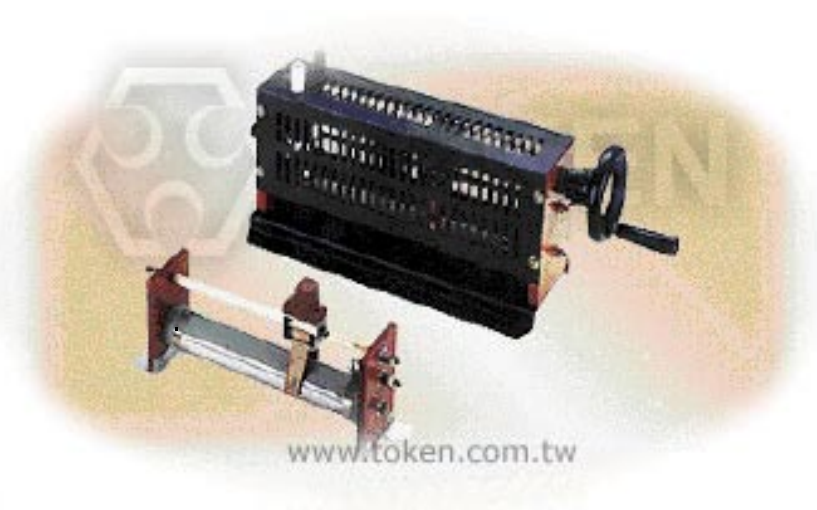
The Power Adjustable BSR, and BSQ Resistor is RoHS compliant and lead free. For unusual technical requirements and custom special applications, please contact us.

### Features :

- Resistance Tolerance: K(±10%).
- High power and high current applications.
- Flame resistant and rugged lead free coating.
- One-of-a-kind enclosure application to fit mount housing various resistor packages.

### To Calculate Max. Amperes :

- Amperes = (Watts / Ohms)<sup>1/2</sup>

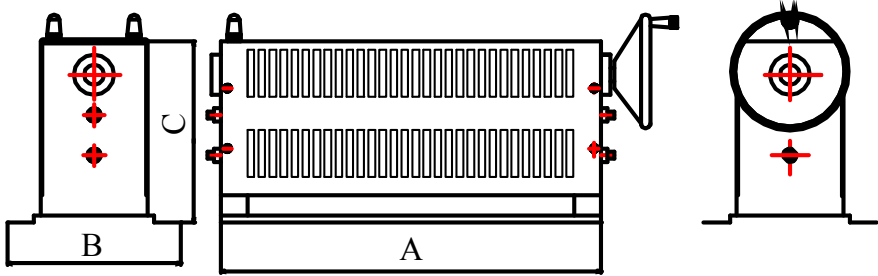


## Construction

### High Current Adjustable Power Resistor Construction :

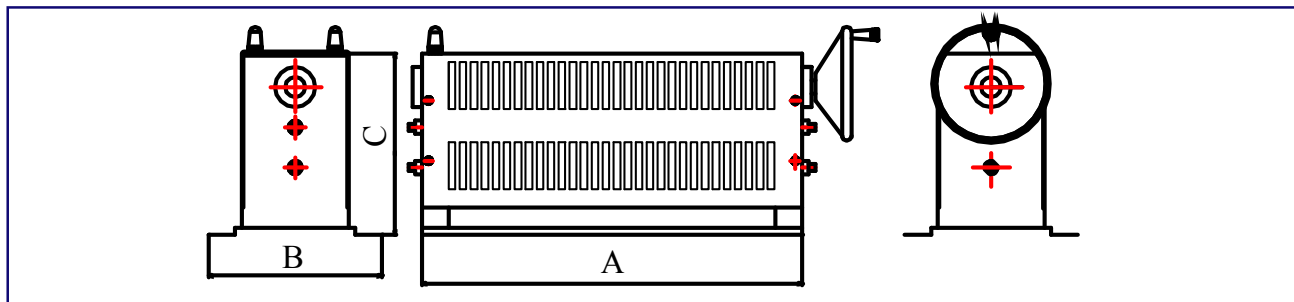
- A tubular ceramic form has copper-alloy or chromium-alloy windings as a resistance element, with the mount attachment enclosures.
- These quality design features include all stainless steel grids and terminals, welded construction, high temperature insulation, end-frames with gussets for added mechanical strength. Slotted mounting holes for easy installation.
- The entire component is coated with a high-temperature non-flammable resin.
- The adjustable mechanism is a firm rotating point that slides directly on the resistance element, which allows variation of the desired resistance value.
- Also accommodates a flexible range of assembly options for convenient utilization and installation.

## (BSR) Dimensions



Wattage Rating	Dimensions(mm)						Max. Resistance Range( $\Omega$ )
	Case	A	B	C	Ceramic Rod	Bakelite	
200W	A	285	130	135	28×250	120×70×10	0.5-2K $\Omega$
400W	B	360	150	185	40×325	170×90×10	0.5-4K $\Omega$
500W	B	360	150	185	40×325	170×90×10	0.5-5K $\Omega$
1000W	C	570	160	200	60×535	185×100×10	0.5-10K $\Omega$
1300W	D	680	160	200	65×645	185×100×10	0.5-13K $\Omega$

## ► (BSR) Dimensions



Wattage Rating	Dimensions(mm)						Max. Resistance Range( $\Omega$ )
	Case	A	B	C	Ceramic Rod	Bakelite	
200W	A	285	130	135	28×250	120×70×10	0.5-30 $\Omega$
400W	B	360	150	185	40×325	170×90×10	0.5-60 $\Omega$
500W	B	360	150	185	40×325	170×90×10	0.5-75 $\Omega$
1000W	C	570	160	200	60×535	185×100×10	0.5-150 $\Omega$
1300W	D	680	160	200	65×645	185×100×10	0.5-200 $\Omega$

## ► Application Notes

### Determination of End Resistance Value of FVR, DQS, DSRA, DSRB, BSR, BSQ:

- Resistance Range means you can choose one maximum resistance value (End resistance value) at one of FVR, DQS, DSRA, DSRB, BSR, BSQ VR (Variable Resistor) type.
- After End Resistance Value confirmed, the minimum resistance (start resistance value) will be determined by depending on resistance of wire and wirewound type.

### Power Rating of Variable Resistor:

The part Number formation of FVR, DQS, DSRA, DSRB, BSR, BSQ:

Product type - Rated Wattage - Resistance Value ( $\Omega$ ) - Resistance Tolerance

Product type means one of FVR, DQS, DSRA, DSRB, BSR, BSQ.

Rated Wattage means power rating at End Resistance Value.

Resistance Value ( $\Omega$ ) means maximum resistance value (End Resistance Value).

Resistance Tolerance means precision range of End Resistance Value.

1. Power Rating of VR (Variable Resistor) is determined by the maximum resistance value (End Resistance Value).
2. Resistance and Power Rating should be decreased while you are adjusting the screw.

## Notes:

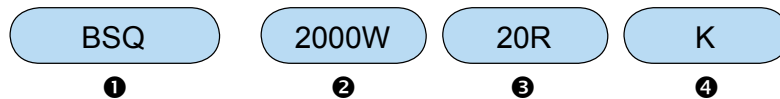
- Adjustability is 10% to 90% of full resistance value.
- Wattage is proportional to this adjusted resistance value.

## Power Rating:

- Based on 25°C free air rating. The stated wattage rating applies only when the entire resistance is in the circuit.
- Setting the lug at an intermediate point reduces the wattage rating by approximately the same proportion.
- Example: If the lug is set at half resistance, the wattage is reduced by approximately one-half.

If you need current constant type or special specifications, please feel free to contact us.

## How to Order



- ❶ Part Number: BSR  
BSQ
- ❷ Rated Power (W): 200W~1300W  
300W~2000W
- ❸ Max. Resistance Value ( $\Omega$ ): Indicates resistance value in units of ohms.
- ❹ Resistance Tolerance (%)

Code	Resistance Tolerance
K	$\pm 10\%$

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