

## 電流シャント RCS3

## 3W CURRENT SENSING RESISTORS

## RCS3 (170A)



## 特長 用途

定格電流 170A (RCS3-0.1mohm, 3W) の4端子電流検出抵抗器。

優れた長期安定性、自己発熱と周囲温度変化に対して抵抗値安定性があり、抵抗温度係数は 100 ppm/°C、完全溶接構造とニッケル合金材料のミリオーム抵抗器。

100A クラスの電流ブスバに直接実装可能。

パワーエレクトロニクスの電流検出、インバータの電力検出、高速充電装置、定電流電源、電子負荷装置など

## Features and Applications

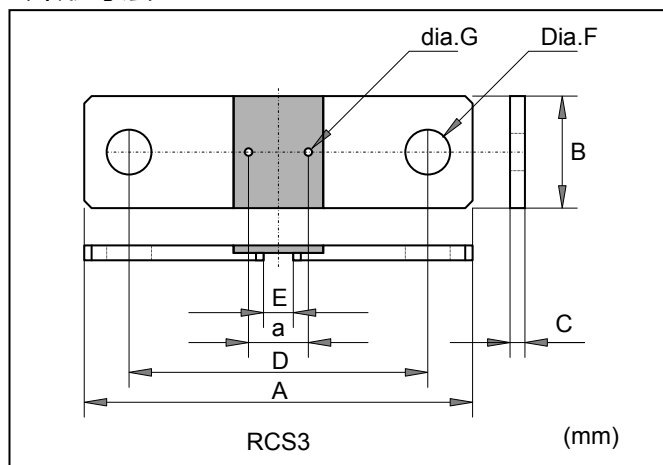
Rating current 170A (0.1mohm-3W, current detecting resistors for electric equipments.

Excellent long term stability and less than 80ppm/C TCR are realized by using Ni alloy and fully fine welding structure.

Simple 4-ports Kelvin structure is easy to install large current bus-bar.

Current detection in precision power source, constant current source, industrial power conversion circuit, battery charging control, constant electronic load and etc.

## 外形寸法 Dimensions



RCS3	(mm)	(inch)
A	55.0	2.165
B	15.0	0.591
C	2.0	0.079
D	40.0	1.575
F	6.2	0.244
G	0.8	0.031
E (0.1mohm)	7.0	0.275
E (0.2mohm)	9.6	0.378
E (0.3mohm)	12.0	0.472
E (0.4mohm)	14.5	0.571
E (0.5mohm)	17.5	0.689

## Rating current and Maximum, RCS3

milliohm	Rating Current(A)	Max Current (A)
0.1	173	865 / 5sec.
0.2	122	610 / 5sec.
0.3	100	500 / 5sec.
0.4	86	430 / 5sec.
0.5	77	385 / 5sec.

Note (1): Rating and maximum current are specified in connecting to bus-bar, not at standing alone resistor in free air

## 品目番号 Ordering Information

Type	TCR	Resistance Value	Tolerance	Note
RCS3	A	R0001	F	Z00
RCS3	A (0/+100ppm/°C)	R0001	F(+/-1%)	Z00
		R0002	J(+/-5%)	
		R0003		
		R0004		
		R0005		

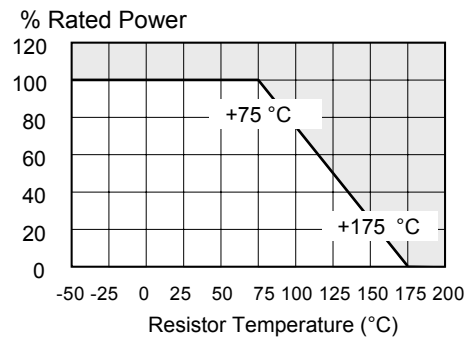
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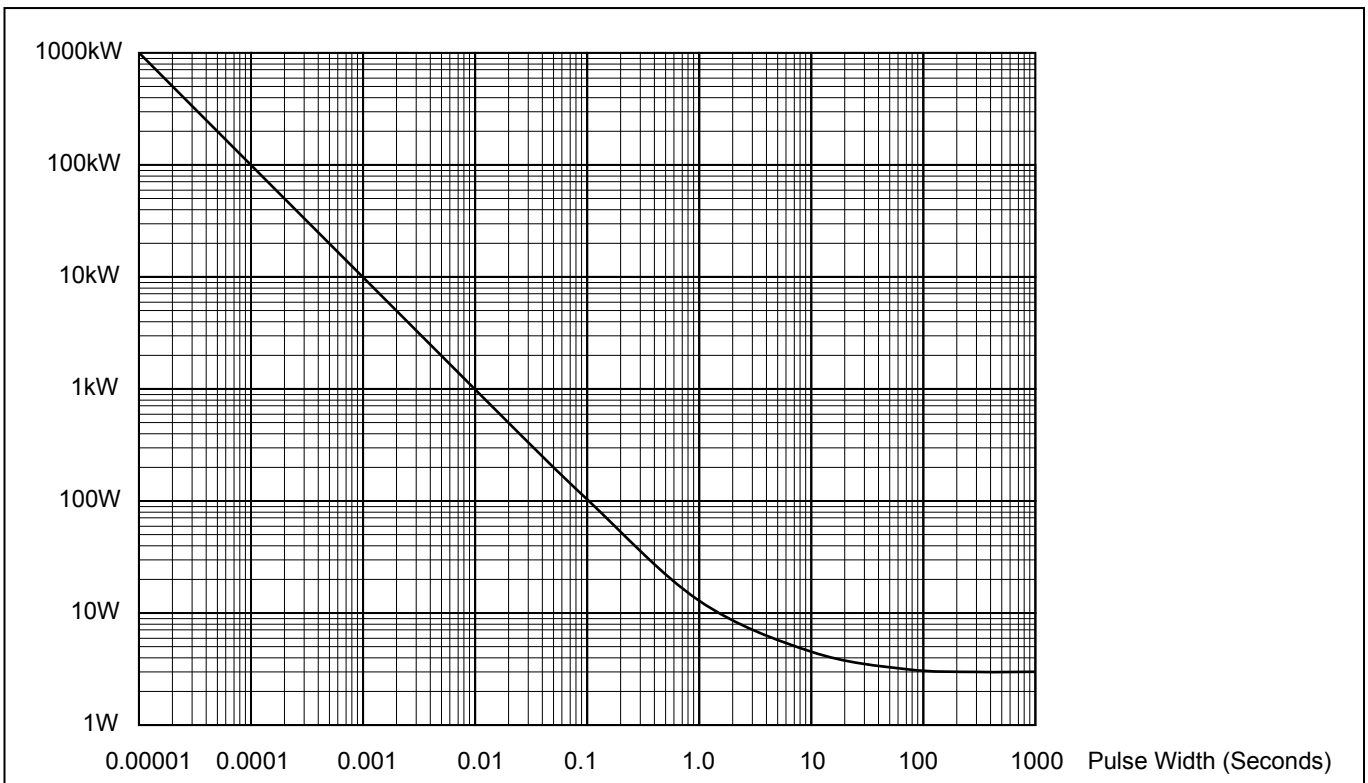
性能仕様 Specification and Performance

負荷軽減 Power Derating

Items	Specification
Type	RCS3
Resistance	0.1 to 0.5 milliohm
TCR	+0 to +100ppm/°C (A)
Tolerance	+/-1% (F) and +/-5% (J)
Rating Power	3W
Maximum Power	100W / 0.1seconds
Rating Current	See upper table
Operating Temperature	-55°C - +175°C
Storage Temperature	-55°C - +125°C



パルス耐カ Pulse Energy (RCS3AR0001FZ00)



代表的実装方法 Applications

Note:

- (1) When RCS current detector is attached to current bus, mechanical strain shall be rejected from the resistor as shown in above illustration.
- (2) Resistance shall be made by calculating from DC voltage on detecting terminal at application of current through current terminals..
- (3) Voltage output Copper pins shall be contacted to Copper terminals of resistor.

Recommended installation is shown in right hand drawing. Terminal shall be used R type (JST38-S5) with AWG#2. Bus bar shall be used Cu bar, 15.5mm width and 2mm thick. Cross area will be 31mm square. Screw is M5-M6.