

2W, 3W, 4W 電流検出抵抗器

2W 3W 4W CURRENT SENSING RESISTORS

RCS2(100A),

RCS3(170A)

RCS4(170A)



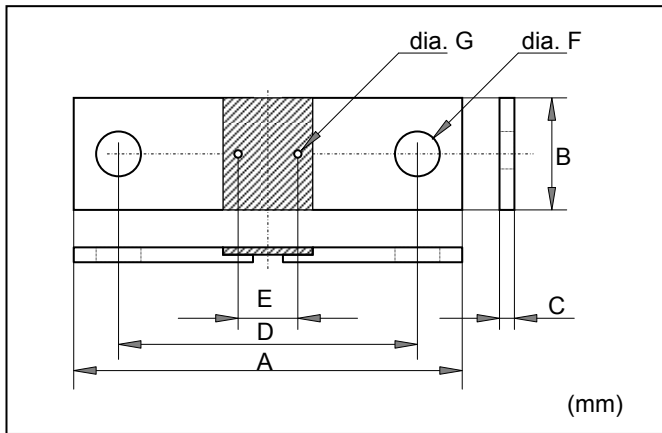
特長 用途

定格電流 170A (RCS3-0.1mオーム、3W)と100A (RCS3-0.1mオーム-2W)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±50ppm/°C以下、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クラスの電流バスに直接実装可能。
 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、燃料電池試験装置などの定電流電源、電子負荷装置など

Features and Applications

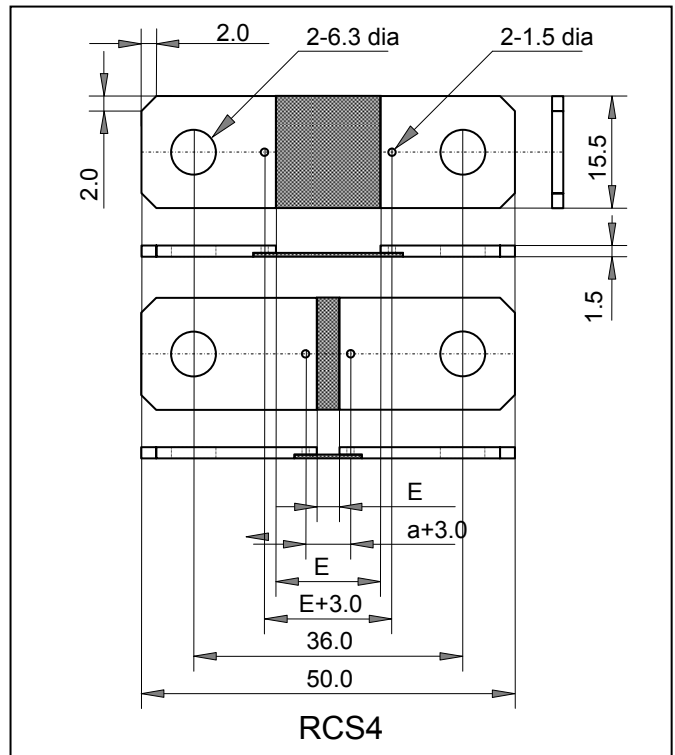
Rating current 170A (0.1mohm-3W) and 100A (0.1mohm-2W) current detecting resistors for electric equipments.
 Excellent long term stability and less than 50ppm/C TCR are realized by using Ni alloy and fully fine welding structure.
 Simple 4-ports Kelvin structure is easy to install large current bus-bar.
 Current detection in precision power source, constant current source, industrial power conversion circuit, HEV, of fuel cells, constant electronic load and etc.

寸法形状 Dimensions



| (mm) | RCS2 | RCS3 | RCS4 |
|------|------|------|------|
| A | 50.0 | 55.0 | 50.0 |
| B | 12.0 | 15.0 | 15.5 |
| C | 2.0 | 2.0 | 1.5 |
| D | 35.0 | 40.0 | 36.0 |
| F | 6.2 | 6.2 | 6.3 |
| G | 3.2 | 0.8 | 1.5 |

| | milliohm | RCS2 | RCS3 | RCS4 |
|---|----------|------|------|------|
| E | 0.1 | 5.6 | 7.0 | 3.0 |
| E | 0.2 | 7.7 | 9.6 | 6.0 |
| E | 0.3 | 9.6 | 12.0 | 9.0 |
| E | 0.4 | 11.6 | 14.5 | 12.0 |
| E | 0.5 | 14.0 | 17.5 | 7.5 |
| E | 0.6 | --- | --- | 9.0 |
| E | 0.7 | --- | --- | 10.5 |
| E | 0.8 | --- | --- | 12.0 |
| E | 0.9 | --- | --- | 13.5 |
| E | 1.0 | --- | --- | 15.0 |



Rating current and Maximum, RCS3-RCS4 (1).

| milliohm | Rating Current(A) | Max Current (A) |
|----------|-------------------|-----------------|
| 0.1 | 173 | 200 |
| 0.2 | 122 | 141 |
| 0.3 | 100 | 115 |
| 0.4 | 86 | 100 |
| 0.5 | 77 | 89 |

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2W 3W 4WCURRENT SENSING RESISTORS

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形名称呼 Ordering Information

| | | | | |
|--------------|----------------|--------------------|----------------|-------------|
| Type RCS4 | TCR A | Resistance 0L10 | Tolerance F | Note Z00 |
| RCS2 | A (0/+80ppm/C) | 0L10 | F(+/-1%) | Z00 |
| RCS3 | | 0L20 | J(+/-5%) | |
| RCS4 | | 0L30 | | |
| | | 0L40 | | |
| | | 0L50 | | |

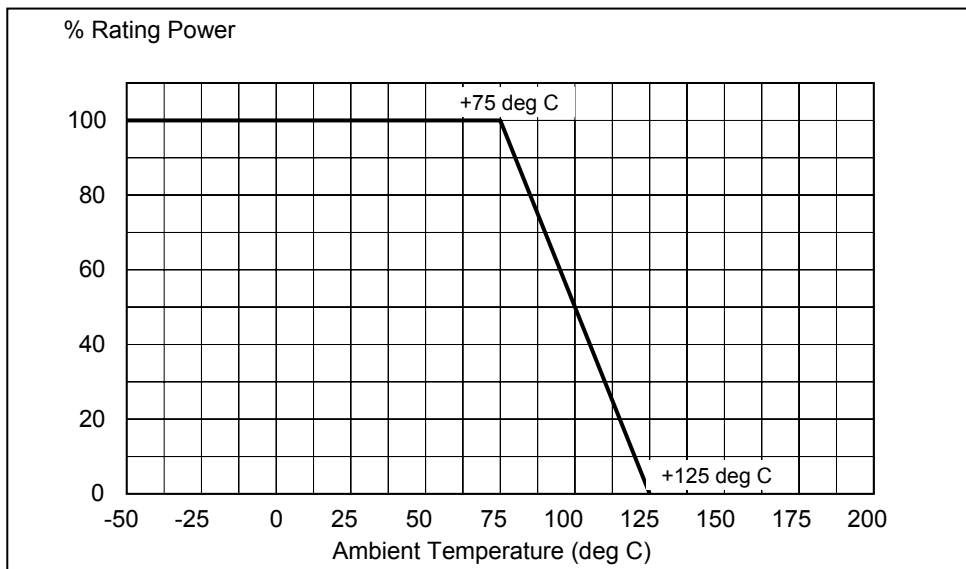
仕様性能 Specification and Performance

| Items | | 仕様 Specification | | |
|---------|-----------------------|-------------------------|-------------------------|-------------------------|
| 形名 | Type | RCS2 | RCS3 | RCS4 |
| 抵抗値 | Resistance | 0.1 to 0.5mohm | 0.1 to 0.5mohm | 0.1 to 0.5mohm |
| 抵抗体温度係数 | TCR | +0 to 80ppm/C (A) | +0 to 80ppm/C (A) | +0 to 60ppm/C (A) |
| 検出許容差 | Tolerance | +/-1% (F) and +/-5% (J) | +/-1% (F) and +/-5% (J) | +/-1% (F) and +/-5% (J) |
| 定格電力 | Rating Power | 2W | 3W | 4W |
| 瞬間電力 | Maximum Power | 2kW/0.1seconds | 3kW/0.1seconds | 2kW/0.1seconds |
| 定格電流 | Rating Current | See below | See below | See below |
| 使用温度範囲 | Operating Temperature | -55C – +125C | -55C – +125C | -55C – +125C |
| 保存温度範囲 | Storage Temperature | -55C – +125C | -55C – +125C | -55C – +125C |

定格電流 Rating Current

| Resistance | 0.1mohm | 0.2mohm | 0.3mohm | 0.4mohm | 0.5mohm |
|------------|---------|---------|---------|---------|---------|
| RCS2(2W) | 141.4A | 100.0A | 81.6A | 70.7A | 63.2A |
| RCS3(3W) | 173.2A | 122.4A | 100.0A | 86.6A | 77.4A |
| RCS4(4W) | 200.0A | 141.4A | 115.4A | 100.0A | 89.7A |

負荷軽減 Power Derating

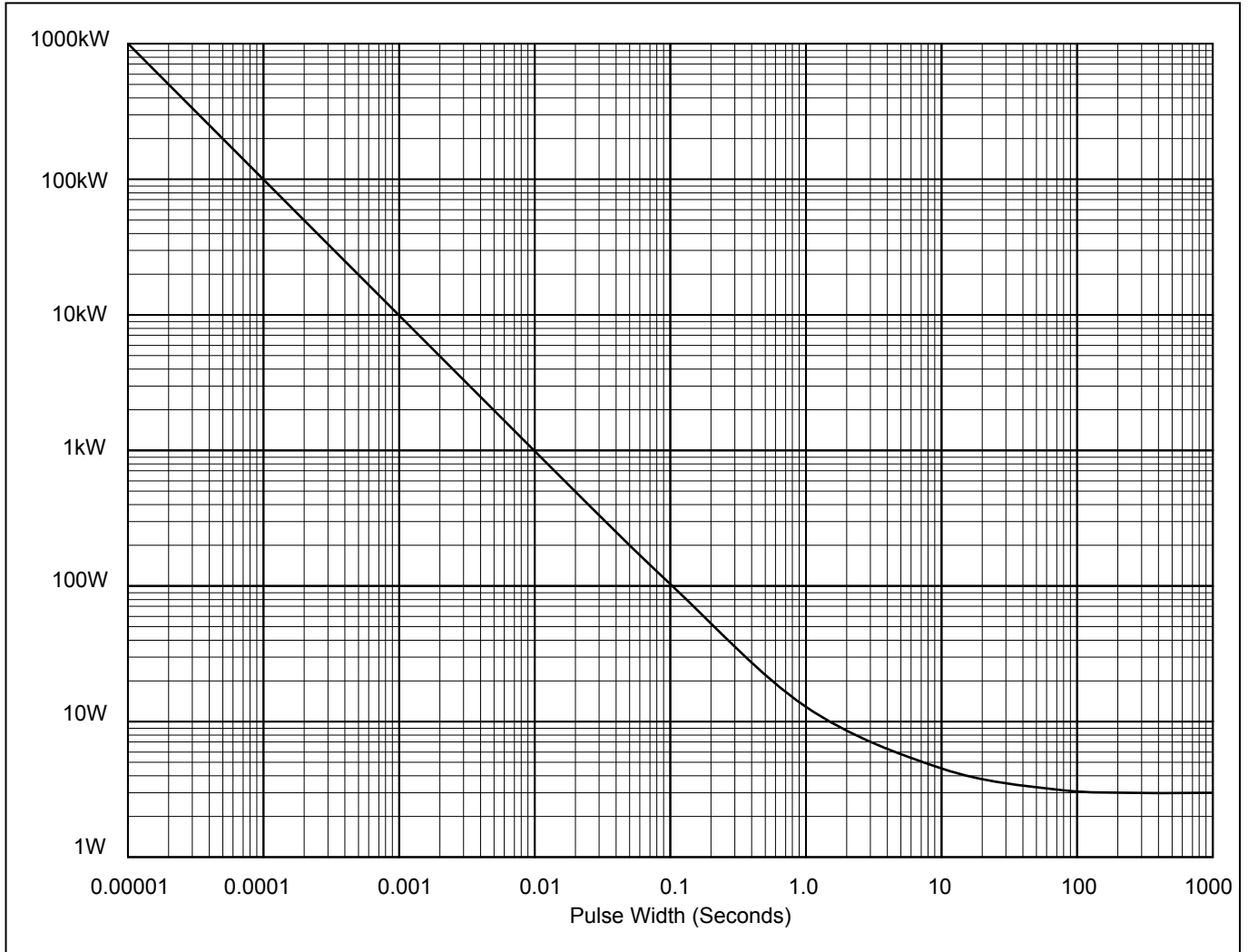


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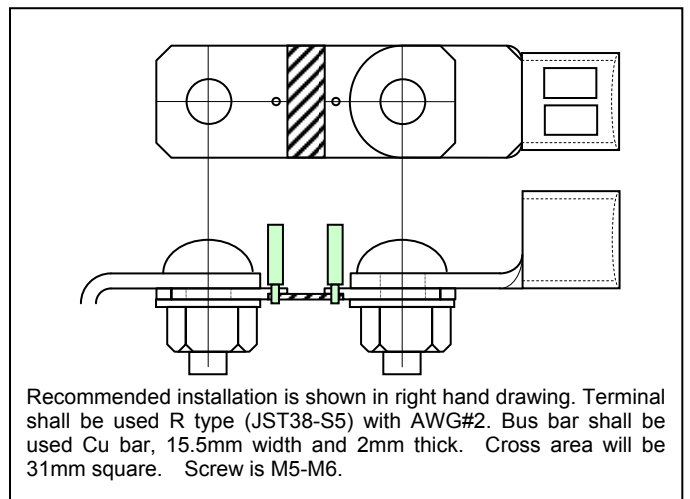
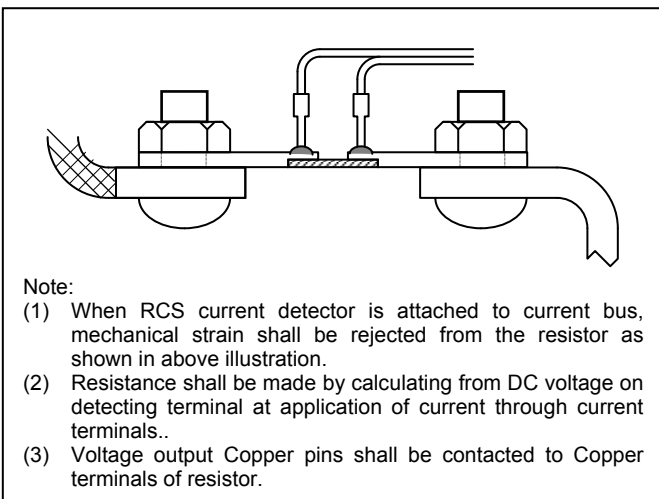
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短時間エネルギー Pulse Energy (RCS4A0L100FZ00)



使用法 Recommendation



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