Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Type SR Precision Current Sense Resistors

Non-inductive Design - Compact Footprint Minimizes Circuit Board Space
Kelvin Terminals (Four Wire) - Resistance Values 0.005Ω to 1.00Ω

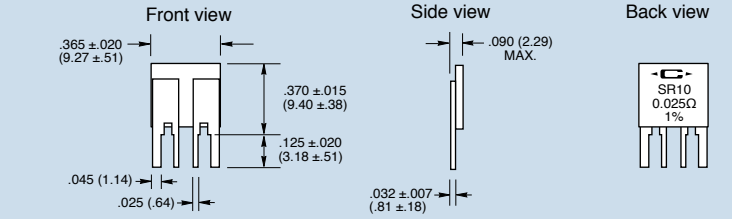
Type SR Current Sense Resistors utilize Caddock's Micronox® resistance films to achieve a low cost resistor with Non-inductive Performance. This compact construction makes this sense resistor ideal for many current monitoring or control applications.

The special performance features of these Type SR Current Sense Resistors include:

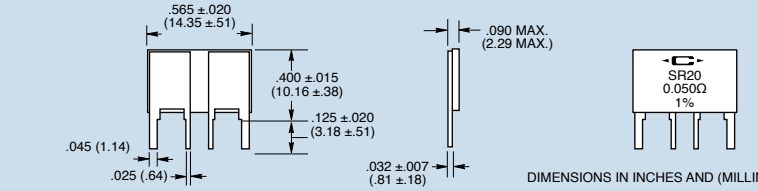
- Available in Standard Resistances down to 5 milliohm.
- Non-Inductive Design.
- Terminals are constructed for Kelvin connections to the circuit board.
- Compact footprint.

Model No.	Resistance		Power Rating at 70°C*	Voltage Rating	Terminal Material
	Min.	Max.			
SR10	0.008 Ω	1.00 Ω	1.0 Watt	Power Limited	Solderable
SR20	0.005 Ω	1.00 Ω	2.0 Watts	Power Limited	Solderable

SR10 PACKAGE DIMENSIONS

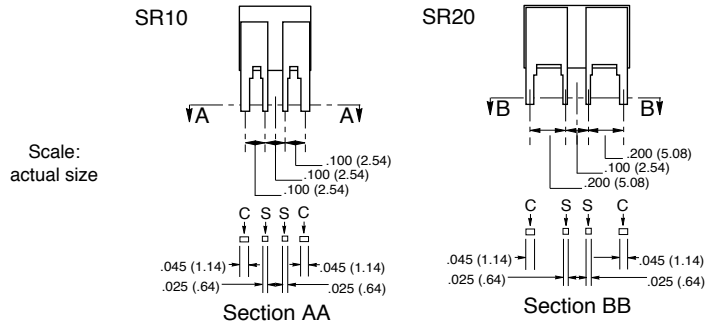


SR20 PACKAGE DIMENSIONS



DIMENSIONS IN INCHES AND (MILLIMETERS)

CIRCUIT BOARD LAYOUT NOTES



Measurement note: For purposes of these specifications, resistance measurement shall be made using Kelvin connections (four wire) with appropriate current and sense connections to the device terminals.

C = Current connection S = Sense connection

Circuit Board Layout: The circuit board traces connecting to the current terminals must be sized appropriately for the current flowing through the trace. For example; 0.005Ω operated at 2.0 Watts would have 20 amps flowing through the circuit board traces into the current terminals.

SR10 Standard Resistance Values:

0.008 Ω	0.020 Ω	0.040 Ω	0.15 Ω	0.40 Ω
0.010 Ω	0.025 Ω	0.050 Ω	0.20 Ω	0.50 Ω
0.012 Ω	0.030 Ω	0.075 Ω	0.25 Ω	0.75 Ω
0.015 Ω	0.033 Ω	0.10 Ω	0.30 Ω	1.00 Ω

SR20 Standard Resistance Values:

0.005 Ω	0.020 Ω	0.040 Ω	0.15 Ω	0.40 Ω
0.008 Ω	0.025 Ω	0.050 Ω	0.20 Ω	0.50 Ω
0.010 Ω	0.030 Ω	0.075 Ω	0.25 Ω	0.75 Ω
0.015 Ω	0.033 Ω	0.10 Ω	0.30 Ω	1.00 Ω

Custom resistance values can be manufactured for high quantity applications. Please contact Caddock Applications Engineering.

Specifications:

Resistance Tolerance: ±1.0%

Temperature Coefficient: TC referenced to +25°C, ΔR taken at -15°C and +105°C.

0.081 to 1.00 ohm	-50 to +100 ppm/°C
0.025 to 0.080 ohm	0 to +150 ppm/°C
0.008 to 0.024 ohm	0 to +200 ppm/°C
0.005 to 0.007 ohm	0 to +300 ppm/°C

Load Life: 1000 hours at rated power at +70°C, ΔR ±(0.2 percent + 0.00001 ohm) max.

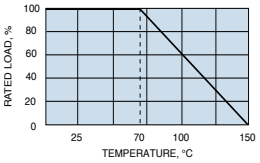
Thermal Shock: Mil-Std-202, Method 107, Cond. A, ΔR ±(0.2 percent + 0.00001 ohm) max.

Moisture Resistance: Mil-Std-202, Method 106, ΔR ±(0.2 percent + 0.00001 ohm) max.

Encapsulation: Polymer over resistance element.

Power Derating Curve:

*** Power rating:** The power rating should be limited as shown by the derating curve based upon the maximum ambient temperature. The derating curve is based on still air with natural convection around the resistor.



Ordering Information:

SR10 - 0.050 - 1%

Model Number: **Resistor Value:** **Tolerance**

Applications Engineering
17271 North Umpqua Hwy.
Roseburg, Oregon 97470-9422
Phone: (541) 496-0700
Fax: (541) 496-0408

CADDOCK ELECTRONICS, INC.
e-mail: caddock@caddock.com • web: www.caddock.com
For Caddock Distributors listed by country see caddock.com/contact/dist.html

Sales and Corporate Office
1717 Chicago Avenue
Riverside, California 92507-2364
Phone: (951) 788-1700
Fax: (951) 369-1151