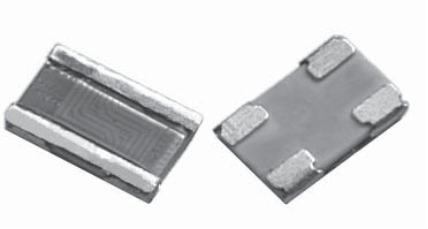
SURFACE MOUNT

Bulk Metal® Foil Technology
Surface Mount Current Sensing Chip Resistors



Product may not be to scale

FEATURES

- Low Ohmic Values: 0.01Ω to 1.0Ω
- Resistance Tolerance: to ± 1.0%
- Low Temperature Coefficient of Resistance
- Power Rating: 1 watt at + 85°C
- Current Rating: 5 Amperes maximum
- Tin/Lead Coated Terminations Standard
- Gold Plated Terminations Available on Special Order (Special Part Number Required)

Model VCS chip resistors have 4 tin/lead coated surface mount pads for 4-terminal connection where a current sensor is required. Utilizing Vishay Bulk Metal® Foil as the resistance element, they provide performance capabilities far greater than other resistor technologies can supply in a product of comparable size.

These small devices dissipate the heat almost entirely through the pads so surface mount users are encouraged to be generous with the pads and board traces. Some hybrid users may want to use conductive epoxy for the interconnection and gold terminations are available on special order. (Tin/lead oxidizes on the surface and the conductive epoxy joint eventually fails electrically.)

TABLE 1 - TEMPERATURE COEFFICIENT OF RESISTANCE – 55°C TO + 125°C, + 25°C REF.

VALUE (Ω)	TCR (ppm/°C)
> 0R500 to 1R0	± 10
> 0R100 to 0R500	± 15
> 0R050 to 0R100	± 20
> 0R030 to 0R050	± 35
> 0R020 to 0R030	± 50
0R01 to 0R020	± 80

TABLE 2 - CHARACTERISTICS

MODEL NUMBER	RESISTANCE RANGE	RESISTANCE TOLERANCE	POWER RATING @ + 85°C	MAXIMUM CURRENT
VCS2516	0.1Ω to 1.0Ω 0.01Ω to < 0.1Ω	to ± 1.0% to ± 5.0%	1 watt on ceramic substrate (0.5 W on PCB)	5 Amperes

TABLE 3 - ORDERING INFORMATION

Specify Vishay VCS2516 resistors as follows:

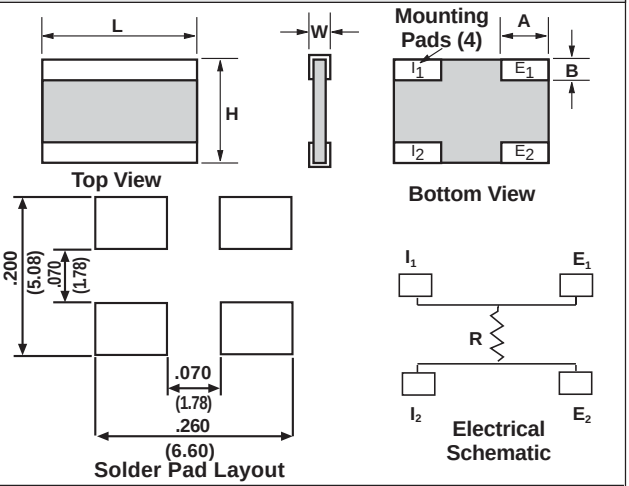
Example: **VCS2516** **0R1000** **1.0%**

MODEL — RESISTANCE VALUE — TOLERANCE

Resistance Value, in ohms, is expressed by a series of 6 characters, 5 of which represent significant digits while the 6th is a dual purpose letter that designates both the multiplier and the location of the comma or decimal.

RESISTANCE RANGE	LETTER DESIGNATOR	MULTIPLIER FACTOR	EXAMPLE
0.01Ω to 1Ω	R	x1	0R1000 = 0.1000Ω

FIGURE 1 - DIMENSIONS in inches and millimeters



DIMENSIONS

	INCHES	mm
L	0.250 ± 0.010	6.35 ± 0.25
H	0.160 ± 0.010	4.06 ± 0.25
W	0.040 maximum	1.02 maximum
A	0.080 ± 0.005	2.03 ± 0.13
B	0.040 ± 0.010	1.02 ± 0.25

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