

Current Sensing Chip Resistors

Type: CS

Sizes: 0402, 0603, 0805, 0815, 0830, 1206, 1225, 2010, 2512

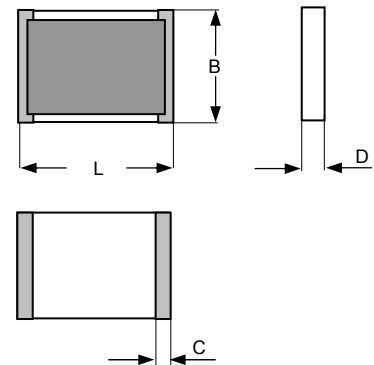
Features:

- Chip Resistors in thick film technology
- Pb-free terminations - RoHS compliant
- Low values
- Close tolerances - low TCR
- High power ratings up to 3W
- Long side terminations available



Dimensions:

Size	L	B	D	C
0402	1.0 ± 0.05	0.5 ± 0.05	0.32 ± 0.10	0.2 ± 0.10
0603	1.6 ± 0.10	0.8 ± 0.10	0.45 ± 0.10	0.3 ± 0.20
0805	2.0 ± 0.15	1.25 ± 0.15	0.55 ± 0.10	0.4 ± 0.25
0815	2.0 ± 0.20	3.75 ± 0.20	0.60 ± 0.10	0.4 ± 0.20
0830	2.0 ± 0.20	7.5 ± 0.30	0.60 ± 0.10	0.4 ± 0.20
1206	3.05 ± 0.15	1.55 ± 0.15	0.55 ± 0.10	0.4 ± 0.25
1225	3.1 ± 0.15	6.3 ± 0.15	0.90 ± 0.15	0.55 ± 0.25
2010	5.0 ± 0.20	2.45 ± 0.15	0.60 ± 0.15	0.5 ± 0.25
2512	6.35 ± 0.20	3.15 ± 0.15	0.60 ± 0.10	0.55 ± 0.25



L = length, B = Width, D = Thickness, C = Width wrap around (in mm)

Packaging:

Minimum order quantity: 1000 pieces per value

Paper tape

Reel diameter 180 mm

Ordering Data:

Type – value – tolerance – TCR

Example: CS 2010 0R22 $\pm 1\%$ TCR 100

If no requirements for TCR, the highest value in table will be supplied.

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Technical data – depending on size and value:

Size	0402	0603	0805	0815	0830	1206	1225	2010	2512
Power rating P_{70}	0.0625W	0.1W	0.125W (0.25W)*	1W	2W	0.25W (0.5W)*	3W	0.75W (1W)*	1W (1.5W)*
Resistance Range	0R05 ... 1R	0R02 ... 1R	0R02 ... 1R	0R01 ... 0R5	0R001 ... 0R35	0R01 ... 1R	0R003 ... 0R2	0R01 ... 1R	0R01 ... 1R
Tolerances	±0,5% ±1% ±2% ±5%	±0,5% ±1% ±2% ±5%	±0,5% ±1% ±2% ±5%	±1% ±2% ±5%	±1% ±2% ±5%	±0,5% ±1% ±2% ±5%	±0,5% ±1% ±2% ±5%	±0,5% ±1% ±2% ±5%	±0,5% ±1% ±2% ±5%
TCR (±ppm/K)	400 ... 50	600 ... 50	600 ... 50	300 ... 150	300 ... 100	600 ... 50	300 ... 100	600 ... 50	600 ... 50

Operating voltage: $U = \sqrt{P \cdot R}$

* Higher power rating electrical specification on request

Technical data - general:

Temperature range	-55°C ... +155°C
Climatic category acc. to DIN EN 60068-1	55/155/56
Solderability acc. MIL-STD-202F Meth. 208H	245°C, 3s
Max. soldering temperature acc. MIL-STD-202F Meth. 210E (DIN EN 60068-2-58)	260°C, 10s

Long term stability	
Load Life (70°C, power 1.5h on, 0.5h off, 1000h)	$\Delta R < 0.5\%$
Short time overload (2.5x rated power, 5s)	$\Delta R < 0.5\%$
Humidity (40°C, 95%RH, power 1.5h on, 0.5h off, 1000h)	$\Delta R < 0.5\%$
Dry Heat (96h / 155°C)	$\Delta R < 0.5\%$

More data on request

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