

Power Chip Resistors

Type: CRW

Sizes: 1210, 1216, 2010, 2040, 2512, 4020

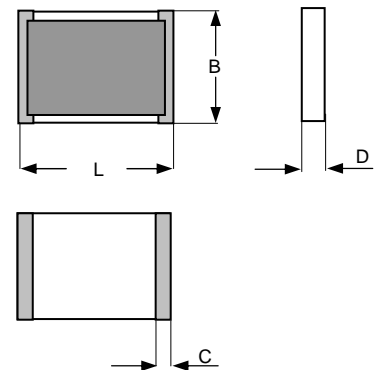
Features:

- Chip Resistors in Thickfilm
- Contact areas Nickel-barrier / matte tin
- RF – versions with air-abrasive trimming
- Improved pulse power rating untrimmed
- Suitable for high vacuum applications – no organics



Dimensions:

Sizes	L	B	D	C
1210	3.2 ^{+0.2/-0.05}	2.5 ^{+0.2/-0.05}	0.5 ^{+0.2/-0.1}	0.8 ^{±0.2}
1216	3.2 ^{+0.2/-0.05}	4.1 ^{+0.2/-0.05}	0.5 ^{+0.2/-0.1}	0.8 ^{±0.2}
2010	5.1 ^{+0.2/-0.05}	2.5 ^{+0.2/-0.05}	0.6 ^{+0.2/-0.1}	1.2 ^{±0.2}
2040	5.1 ^{+0.2/-0.05}	10.2 ^{+0.2/-0.05}	0.6 ^{+0.2/-0.1}	1.2 ^{±0.2}
2512	6.3 ^{+0.2/-0.05}	3.50 ^{+0.2/-0.05}	0.6 ^{+0.2/-0.1}	0.9 ^{±0.2}
4020	10.2 ^{+0.2}	5.1 ^{+0.2}	0.6 ^{+0.2/-0.1}	0.9 ^{±0.2}



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

Packaging:

Bulk in plastic bags – minimum quantity 100 pieces per value
Blister tape acc. to IEC 60286-3 – minimum 1000 pieces per value
Reel diameter 180 mm or 330 mm

Ordering Data:

Type – value – tolerance – TCR – packaging
Example: CRW 1216 100 R ± 1% TK50 Tape 180 mm

Untrimmed parts are indicated by the extension "NA" in the order code:

Type – value – tolerance – NA – TCR - packaging
Example: CRW 1216 100 R ± 5% NA TK50 Tape 180 mm

If no requirements for TCR and taping are given, the standard value (highest value in table) will be supplied and packaging is bulk.

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Technical data – depending on size:

Size	1210	1216	2010	2040	2512 (M)	4020 (M)
Power rating P_{70} (W) ¹⁾ ($P_{155} = 0$ W)	0,35	0,5	0,75 ³⁾	2,0 ³⁾	1,0 / 1,5 ³⁾	2,0 ³⁾
Working voltage ⁴⁾ U_{-} , U_{eff} (V) trimmed untrimmed (Tol. $\geq 5\%$)	200 600	200 600	250 900	250 900	300 (1000) 1200 (2000)	500 (4000) 1500 (6000)

Ranges / Tolerances / TCR ²⁾						
0R1 – < 1R	TC250 5/10/20%	TC250 5/10/20%	TC250 5/10/20%	TC250 5/10/20%	TC250 5/10/20%	TC250 5/10/20%
1R – < 100R	TC100/250 1/.../20%	TC100/250 1/.../20%	TC100/250 1/.../20%	TC100/250 1/.../20%	TC100/250 1/.../20%	TC100/250 1/.../20%
100R – 100M	TC50/100 1/.../20%	TC50/100 1/.../20%	TC50/100 1/.../20%	TC50/100 1/.../20%	TC50/100 0.5/.../20%	TC50/100 0.5/.../20%
100k – 100M	TK50/100 1/.../20%	TK50/100 1/.../20%	TK25/50/100 1/.../20%	TK25/50/100 1/.../20%	TK25/50/100 1/.../20%	TK25/50/100 1/.../20%

¹⁾ At continuous power dissipation the dimensions of solder-pads have to secure sufficient heat-conduction.

²⁾ TC/50: Temperature range + 25°C...+ 125°C

³⁾ Higher power requires oversized solder pad

⁴⁾ Continuous operating voltage: $U = \sqrt{P \cdot R}$

Zero-Ohm-Jumper: < 50 mOhm. TCR max. + 4000 ppm/K

M at 2512/4020: Meander structure with higher working voltage in brackets.

Technical data – general:

Temperature range	-55°C ... +155°C
Climatic category acc. to EN 60068-1	55/155/56
Solderability acc EN 60068-2-58 (lead free and lead containing)	250°C 3 s
Max. soldering temperature acc. EN 60068-2-58	260°C 10 s

Long term stability	10R – 100M	<10R
Storage 125°C/1000h	<0.5%	<1%
Storage 155°C/1000h	<1%	<2%
Load P_{70} /70°C/1000h	<1%	<2%
Short term overload	<0.25%	<0.5%
Damp heat (56d/40°C/96%)	<0.5%	<1%

Data not specified according EN 140401-802 (CECC 40401-802)

Specifications subject to change without notice

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