

## CRS Series Standard Chip Resistors

Sizes: 0504, 0603, 0805, 1206

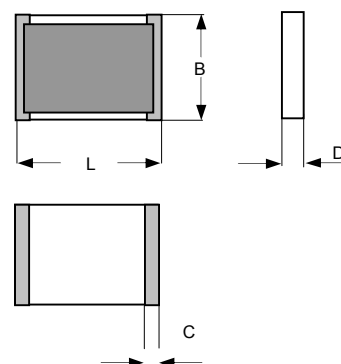
### Features:

- Chip resistors in thick film technology
- Resistance element glass-passivated
- Nickel-barrier / matte Tin terminations
- RF-versions untrimmed
- Resistance values up to 500 M $\Omega$
- Working voltage up to 400 Volts
- Suitable for high vacuum applications – no organics

### Dimensions:

Size	L	B	D	C
0504	1.25 <sup>+0.15/-0.05</sup>	1.0 <sup>+0.15/-0.05</sup>	0.3 <sup>+0.15/-0.05</sup>	0.2 <sup>+0.2/-0.1</sup>
0603	1.5 <sup>+0.15/-0.05</sup>	0.8 <sup>+0.15/-0.05</sup>	0.4 <sup>+0.15/-0.05</sup>	0.2 <sup>+0.2/-0.1</sup>
0805	2.0 <sup>+0.15/-0.05</sup>	1.25 <sup>+0.15/-0.05</sup>	0.4 <sup>+0.15/-0.05</sup>	0.3 <sup>+0.2/-0.1</sup>
1206	3.2 <sup>+0.15/-0.05</sup>	1.5 <sup>+0.2/-0.05</sup>	0.4 <sup>+0.15/-0.05</sup>	0.3 <sup>+0.2/-0.1</sup>

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



### Packaging:

Bulk in plastic bags – minimum quantity 100 pieces per value  
Embossed carrier tape acc. to EN 60286-3 – minimum 500 pieces per value  
Reel diameter 180 mm or 330 mm

### Ordering Data:

Type – value – tolerance – TCR – packaging  
Example: CRS 0805 100K  $\pm$  1% - TCR 100 Tape 180 mm

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

Type – value – tolerance – NA – TCR - packaging  
Example: CRS 0805 100K  $\pm$  10% NA TCR 100 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	0504	0603	0805	1206
Power rating $P_{70}$ (mW) ( $P_{155} = 0$ mW)	100	100	125	250
Working voltage <sup>1)</sup> trimmed untrimmed (Tol. $\geq 5\%$ )	50 100	75 150	100 200	200 400

Ranges / Tolerances / TCR <sup>2)</sup>				
0R1 – <1R	–	10/20% TC250	5/10/20% TC250	5/10/20% TC250
1R – <10R	5/10/20% TC100/250	5/10/20% TC100/250	2/5/10/20% TC100/250	2/5/10/20% TC100/250
10R – <100R	2/5/10% TC100	1/2/5/10% TC100	1/2/5/10% TC50/100	1/2/5/10% TC50/100
100R – 1M	1/2/5/10% TC50/100	1/2/5/10% TC50/100	0.5/.../10% TC50/100	0.5/.../10% TC50/100
>1M – 10M	1/2/5/10% TC50/100	1/2/5/10% TC50/100	0.5/.../10% TC50/100	0.5/.../10% TC50/100
>10M – 100M	2/5/10/20% TC100/250	1/.../20% TC50/100	0.5/.../20% TC50/100	0.5/.../20% TC50/100
>100M – 500M	–	5/.../20% TC100/250	2/.../20% TC100/250	2/.../20% TC100/250

<sup>1)</sup>  $U_{-}$ ,  $U_{eff}$  (V); Continuous operating voltage:  $V \leq \sqrt{(P \cdot R)}$

<sup>2)</sup> TCR: in ppm/K; +25°C...+125°C; TCR below standard TCR (highest value): +25°C...+85°C  
 Sizes 0805/1206: TCR 25 is available as special product (range 1M – 100M only)

Zero-Ohm-Jumper: < 50 mOhm

## Technical data – general:

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

Long term stability	10R – 100M	< 10R / > 100M
Storage 125°C/1000h	< 0.5%	< 1%
Storage 155°C/1000h	< 1%	< 2%
Load Life $P_{70}/70^{\circ}\text{C}/1000\text{h}$	< 0.5%	< 1%
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)