

High-Value Chip Resistors

Type: CHS

Sizes: 0402, 0603, 0805, 1206, 1210, 2512, 4020

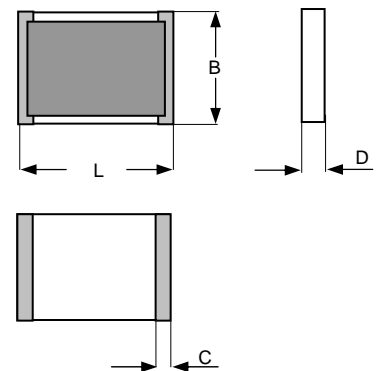
Features:

- High Value Chip Resistors in Thickfilm
- Low temperature and voltage dependency
- Untrimmed for higher Working Voltage up to 6000 V
- Suitable for high vacuum applications – no organics
- Contact areas PtAg for soldering and conductive glueing
- High temperature application possible (up to 300°C)
- non-magnetic



Dimensions:

Size	L	B	D	C
0402	1.04 ± 0.05	0.50 ± 0.05	0.30 $+0.15/-0.05$	0.1 $+0.1/-0.05$
0603	1.50 $+0.15/-0.05$	0.80 $+0.15/-0.05$	0.40 $+0.15/-0.05$	0.2 $+0.2/-0.1$
0805	2.00 $+0.15/-0.05$	1.25 $+0.15/-0.05$	0.40 $+0.15/-0.05$	0.3 $+0.2/-0.1$
1206	3.20 $+0.15/-0.05$	1.50 $+0.2/-0.05$	0.40 $+0.15/-0.05$	0.3 $+0.2/-0.1$
1210	3.20 $+0.15/-0.05$	2.50 $+0.2/-0.05$	0.50 $+0.15/-0.05$	0.8 ± 0.2
2512	6.30 $+0.15/-0.05$	3.50 $+0.2/-0.05$	0.60 $+0.15/-0.05$	0.9 ± 0.2
4020	10.20 $+0.15/-0.05$	5.10 $+0.2/-0.05$	0.60 $+0.15/-0.05$	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: CHS 4020 10G $\pm 10\%$ TCR 100 Tape 180 mm

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

Type – value – tolerance – NA – TCR – packaging
Example: CHS 4020 10G $\pm 10\%$ 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. Standard measuring voltage is 10V, required different voltages are to specify explicitly.

Issue 07-2008

High-Value Chip Resistors

Type: CHS

Sizes: 0402, 0603, 0805, 1206, 1210, 2512, 4020

Technical data – depending on size:

Size	0402	0603	0805	1206	1210	2512	4020
Power rating P_{70} (mW) ($P_{155} = 0$ mW)	50	100	125	250	350	1000 ¹⁾	1500 ¹⁾
Max. Working Voltage U_{-} , U_{eff} (V) trimmed untrimmed (Tol. $\geq 5\%$)	30 100	75 220	100 300	200 600	300 900	1000 2000	4000 6000

Ranges/Tolerances/ TCR ²⁾ /VCR							
10M – 100M	5/10/20% TC50/100 <500 ppm/V	1/5/10/20% TC50/100 <250 ppm/V	0.5/1/5/10/20% TC50/100 <100 ppm/V	0.5/1/5/10/20% TC25/50/100 <100 ppm/V	0.5/1/5/10/20% TC25/50/100 <50 ppm/V	0.5/.../20% TC25/50/100 <10 ppm/V	0.25/.../10% TC25/50/100 <5 ppm/V
>100M – 500M	5/10/20% TC100/250 <1000 ppm/V	2/5/10/20% TC100/250 <500 ppm/V	2/5/10/20% TC100/250 <250 ppm/V	2/5/10/20% TC50/100/250 <100 ppm/V	2/5/10/20% TC50/100/250 <100 ppm/V	1/5/10/20% TC25/50/100 <25 ppm/V	0.5/.../20% TC25/50/100 <10 ppm/V
>500M – 1G	5/10/20% TC250/500 <1000 ppm/V	5/10/20% TC250/500 <500 ppm/V	5/10/20% TC250/500 <250 ppm/V	5/10/20% TC100/250 <250 ppm/V	5/10/20% TC100/250 <100 ppm/V	1/5/10/20% TC100/250 <25 ppm/V	1/5/10/20% TC25/50/100 <10 ppm/V
>1G – 10G	10/20/30% TC1000/2000 <2000 ppm/V	5/10/20/30% TC500/1000 <2000 ppm/V	5/10/20% TC500/1000 <1000 ppm/V	5/10/20% TC500/1000 <1000 ppm/V	5/10/20% TC250/500 <500 ppm/V	2/5/10/20% TC250/500 <100 ppm/V	2/5/10/20% TC50/100 <25 ppm/V
>10G – 100G		10/20/30% TC1000/2000 <10000 ppm/V	10/20/30% TC1000/2000 <5000 ppm/V	10/20/30% TC1000/2000 <2000 ppm/V	5/10/20% TC500/1000 <1000 ppm/V	5/10/20% TC250/500 <250 ppm/V	5/10/20/30% TC100/250 <100 ppm/V
>100G – 1T		10/20/30% TC3000 <15000 ppm/V	10/20/30% TC3000 <10000 ppm/V	10/20/30% TC3000 <5000 ppm/V	10/20/30% TC1000/2000 <2000 ppm/V	10/20/30% TC500/1000 <500 ppm/V	10/20/30% TC250/500 <250 ppm/V

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

2) TC25/50: Temperature range +25°C...+85°C

Lower values of tolerance, TCR and VCR on request and agreement

Technical data – general:

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

Extended temperature range up to 300°C possible- see datasheet: High temperature chip resistors

Long term stability	<1G	<10G	$\geq 10G$
Storage 125°C/1000h	<1%	<2%	<5%
Maximum Voltage/1000h	<0.5%	<1%	<2%

3) Up to 6 months after shipment; longer at storage in Nitrogen

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

Issue 07-2008