

CHM-Series Precision High-Value Chip Resistors

Sizes: 0805, 1206, 1210, 2010, 2512, 4020

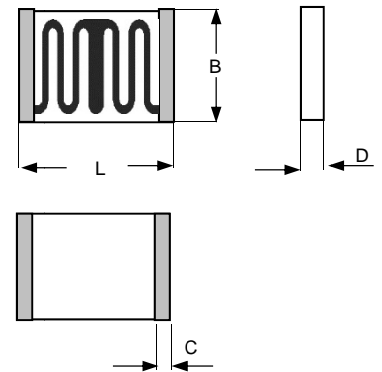
Features:

- Meander structured high value chip resistors in thick film technology
- Low temperature and voltage dependency
- Suitable for high vacuum applications – no organics
- Termination: PtAg for conductive glueing and soldering
- High working voltage up to 6000 V
- High temperature application up to 300°C possible (CHM-HT)
- Non-magnetic



Dimensions:

Size	L	B	D	C
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}
2010	5,10 ^{+0.15/-0.05}	2,50 ^{+0.2/-0.05}	0,60 ^{+0.20/-0,1}	1,2 ^{±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 ^{+0.20/-0.05}	5.10 ^{+0.2/-0.05}	0.60 ^{+0.20/-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 30 pieces per value
 Embossed carrier tape acc. to IEC 60286-3 – minimum 500 pieces per value
 Reel diameter 180 mm or 330 mm

Ordering Data:

Type – value – tolerance – TCR – packaging
 Example: *CHM 2512 10G ±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: *CHM 2512 10G ±10% NA TCR 100 Tape 180 mm*

If no requirements for TCR and taping are given, the standard TCR value (highest value in table) will be supplied and packaging is bulk. Standard measuring voltage is 10V. Different voltages on request and agreement (specify explicitly).

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Technical data – depending on size:

Size	0805	1206	1210	2010	2512	4020
Power rating P ₇₀ (mW) (P ₁₅₅ = 0 mW)	125	250	350	500	1000 ¹⁾	2000 ¹⁾
Working voltage U _L , U _{eff} (V) Standard (trimmed) NA (untrimmed, Tol. ≥ 5%)	200 400	600 1000	800 1200	1500 2000	2500 3000	4000 6000
Ranges / Tolerances / TCR ²⁾ / VCR ³⁾						
100K – 100M	0.5/1/2/5/10% TC25/50/100 100 ppm/V	0.5/1/2/5/10% TC25/50/100 50 ppm/V	0.5/1/2/5/10% TC25/50/100 50 ppm/V	0.5/1/2/5/10% TC25/50/100 25 ppm/V	0.5/1/2/5/10% TC25/50/100 10 ppm/V	0.25/ ... /10% TC25/50/100 5 ppm/V
>100M – 1G	2/5/10/20% TC50/100/250 250 ppm/V	2/5/10/20% TC50/100/250 100 ppm/V	1/2/5/10/20% TC25/50/100 50 ppm/V	1/2/5/10/20% TC25/50/100 50 ppm/V	1/2/5/10/20% TC25/50/100 25 ppm/V	0.5/ ... /20% TC25/50/100 10 ppm/V
>1G – 10G	5/10/20% TC250/500 500 ppm/V	5/10/20% TC100/250 250 ppm/V	2/5/10/20% TC25/50/100 100 ppm/V	2/5/10/20% TC25/50/100 100 ppm/V	2/5/10/20% TC25/50/100 50 ppm/V	1/2/5/10/20% TC25/50/100 10 ppm/V
>10G – 100G	10/20/30% TC1000/2000 1000 ppm/V	10/20/30% TC500/1000 500 ppm/V	5/10/20/30% TC500/1000 500 ppm/V	5/10/20/30% TC250/500 250 ppm/V	5/10/20/30% TC100/250/500 100 ppm/V	2/5/10/20/30% TC50/100/250 50 ppm/V
>100G – 1T	20/30% TC2000 3000 ppm/V	10/20/30% TC1000/2000 1000 ppm/V	5/10/20/30% TC1000/2000 1000 ppm/V	5/10/20/30% TC500/1000 500 ppm/V	5/10/20/30% TC250/500 250 ppm/V	5/10/20/30% TC250/500 100 ppm/V
>1T – 3T	–	on request	on request	on request	10/20/30% TC1000/2000 1000 ppm/V	10/20/30% TC500/1000 500 ppm/V
>3T – 10T	–	-	-	on request	10/20/30% TC2000/3000 2000 ppm/V	10/20/30% TC1000/2000 1000 ppm/V

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

²⁾ TCR: in ppm/K; +25°C...+125°C; TCR lower than standard TCR (highest value) or value >100G: +25°C...+85°C

³⁾ VCR: typical values, all negative, not for all TCR values available

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

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) ⁴⁾	250°C, 3s
Max. soldering temperature acc. to EN 60068-2-58	260°C, 10s

Extended temperature range up to 300°C: see datasheet “High temperature chip resistors” CHM-HT

	< 1G	< 10G	≥ 10G
Long term stability	< 0.25%	< 0.5%	< 1%
Load Life 70°C/1000h	< 0.25%	< 0.5%	< 1%
Storage 125°C/1000h	< 0.5%	< 1%	< 2%
Max. voltage/1000h	< 0.5%	< 1%	< 2%

⁴⁾ Up to 6 months after shipment (air, 30°C/60%rH) or up to 12 months at storage in Nitrogen or in evacuated dry packs.

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