

CHM-Series Precision High-Value Chip Resistors

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

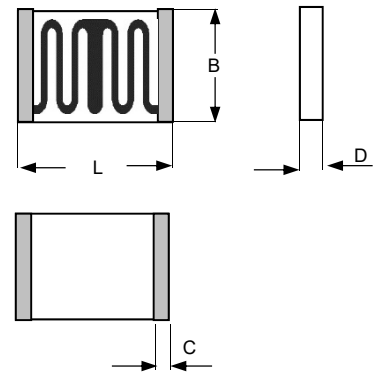
Features:

- 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 – Temperature coefficient TK

Example: *CHM 2512 10G ±10% TK100*

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

Type – value – tolerance – NA – Temperature coefficient TK

Example: *CHM 2512-NA 10G ±10% TK100*

Without requirement for the temperature coefficient TK, the standard value (highest value in table) will be supplied. Standard measuring voltage is 10V. Different voltages on request and agreement (specify explicitly).

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

Technical data – depending on size:

Size	0805	1206	1210	2010	2512	4020
Power rating P ₇₀ (mW) (P ₁₅₅ = 0 mW)	125	250	350	750 ¹⁾	1000 ¹⁾	2000 ¹⁾
Working voltage U ₋ , U _{eff} (V) Standard (trimmed) NA (untrimmed, Tol. ≥ 5%)	200 400	600 1000	800 1200	1500 2000	2500 3000	4000 6000

Ranges / Tolerances / Temperature coefficient TK ²⁾ / VCR ³⁾						
100K – 100M	0.5/1/2/5/10% TK25/50/100 100 ppm/V	0.5/1/2/5/10% TK25/50/100 50 ppm/V	0.5/1/2/5/10% TK25/50/100 50 ppm/V	0.5/1/2/5/10% TK25/50/100 25 ppm/V	0.5/1/2/5/10% TK25/50/100 10 ppm/V	0.25/ ... /10% TK25/50/100 5 ppm/V
>100M – 1G	2/5/10/20% TK50/100/250 250 ppm/V	2/5/10/20% TK50/100/250 100 ppm/V	1/2/5/10/20% TK25/50/100 50 ppm/V	1/2/5/10/20% TK25/50/100 50 ppm/V	1/2/5/10/20% TK25/50/100 25 ppm/V	0.5/ ... /20% TK25/50/100 10 ppm/V
>1G – 10G	5/10/20% TK250/500 500 ppm/V	5/10/20% TK100/250 250 ppm/V	2/5/10/20% TK25/50/100 100 ppm/V	2/5/10/20% TK25/50/100 100 ppm/V	2/5/10/20% TK25/50/100 50 ppm/V	1/2/5/10/20% TK25/50/100 10 ppm/V
>10G – 100G	10/20/30% TK1000/2000 1000 ppm/V	10/20/30% TK500/1000 500 ppm/V	5/10/20/30% TK500/1000 500 ppm/V	5/10/20/30% TK250/500 250 ppm/V	5/10/20/30% TK100/250/500 100 ppm/V	2/5/10/20/30% TK50/100/250 50 ppm/V
>100G – 1T	20/30% TK2000 3000 ppm/V	10/20/30% TK1000/2000 1000 ppm/V	5/10/20/30% TK1000/2000 1000 ppm/V	5/10/20/30% TK500/1000 500 ppm/V	5/10/20/30% TK250/500 250 ppm/V	5/10/20/30% TK250/500 100 ppm/V
>1T – 3T	–	on request	on request	on request	10/20/30% TK2000 1000 ppm/V	10/20/30% TK1000 500 ppm/V
>3T – 10T	–	-	-	on request	10/20/30% TK3000 2000 ppm/V	10/20/30% TK2000 1000 ppm/V

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

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

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

Lower values of tolerance, Temperature coefficient TK 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

Long term stability	< 1G	< 10G	≥ 10G
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.

Other data according to EN 140401-802 (CECC 40401-802).