

## CMF-Series Precision Chip Resistors

Sizes: 0603, 0805, 1206, 2512

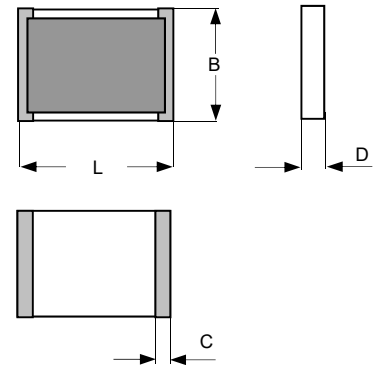
### Features:

- Chip Resistors in thin film technology
- Contact areas: Nickel-barrier / matte tin
- Resistance element resin-passivated
- Close tolerances (0.05%)
- Low temperature coefficients TK (5 ppm/K)
- Extreme low noise
- Operating voltages up to 300V



### Dimensions:

Baugröße	L	B	D	C
0603	1.6 ±0.1	0.8 ±0.1	0.45 ±0.1	0.3 ±0.2
0805	2.0 ±0.1	1.25 ±0.1	0.55 ±0.1	0.4 ±0.2
1206	3.2 ±0.2	1.6 ±0.15	0.55 ±0.1	0.5 ±0.2
2512	6.3 ±0.2	3.2 ±0.2	0.55 ±0.2	0.5 ±0.2



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

### Packaging:

Bulk in plastic bags - minimum quantity 100 pieces per value  
Tape according to IEC 60286-3 – minimum quantity 500 pieces per value  
Reel diameter 180 mm or 330 mm

### Ordering data:

Type – value – tolerance – temperature coefficient TK

Example: *CMF 0805 100K ±0.1% TK15*

Without requirement for the temperature coefficient TK, the standard value (highest value in table) will be supplied.

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## Technical data – depending on size:

Size		0603	0805	1206	2512
Power rating $P_{70}$ (mW) ( $P_{125} = 0$ mW)	0.5; 1 <sup>1)</sup>	65	125	250	750
	0.1 <sup>1)</sup>	32	50	100	400
Working voltage $U_{-}$ , $U_{eff}$ (V) <sup>3)</sup>		75	100	200	300

Ranges / Tolerance / Temperature coefficient TK <sup>2)</sup>				
5R1 – <10R	0.1 ... 1% TK 25/50	0.1 ... 1% TK 25/50	0.1 ... 1% TK 25/50	0.1 ... 1% TK 25/50
10R – <47R	0.1 ... 1% TK 10...50	0.1 ... 1% TK 10...50	0.1 ... 1% TK 10...50	0.1 ... 1% TK 10...50
47R – 332K	0.05 ... 1% TK 5...50	0.05 ... 1% TK 5...50	0.05 ... 1% TK 5...50	0.05 ... 1% TK 5...50
> 332K – 1M	–	0.05 ... 1% TK 5 ... 50	0.05 ... 1% TK 5...50	0.05 ... 1% TK 5...50
> 1M – 2M	–	0.1 ... 1% TK 5...50	0.1 ... 1% TK 5...50	0.1 ... 1% TK 5...50
> 2M – 5M	–	–	0.1 ... 1% TK 15...50	0.1 ... 1% TK 10...50
> 5M – 15M	–	–	–	0.1 ... 1% TK 10...50

Tolerance-classes: 0.05 – 0.1 – 0.25 – 0.5 – 1%

Temperature coefficient TK-Classes: 5, 10, 15, 25, 50 ppm/K

<sup>1)</sup> Stability-Class acc. to EN 140401-801

<sup>2)</sup> Temperature coefficient TK: in ppm/K; +25°C...+125°C; TK5 in temperature range 0°C ... +70°C

<sup>3)</sup> Continuous operating voltage ( $U_{-}$ ,  $U_{eff}$ ):  $V \leq \sqrt{P \cdot R}$  or max. working voltage (the lower value)  
Higher working voltages: see thin film series CMF-V

## Technical data - general:

Temperature range	-55°C...+125°C
Climatic category acc. to EN 60068-1	55/125/56
Solderability acc. to EN 60068-2-58 (lead-free and lead-containing)	245°C 3s
Max. soldering temperature acc. to EN 60068-2-58	260°C 10s

Long term stability	47R – 15M	<47R
Storage 125°C/1000h	<0.15%	<0.25%
Storage 155°C/1000h	<0.35%	<0.50%
Load $P_{70}$ /70°C/1000h	<0.10%	<0.25%
Damp heat (56d/40°C/96%)	<0.15%	<0.50%

Other data according to EN 140401-801 (CECC 40401-801).