

# CMF-Series Precision Chip Resistors

Sizes: 0603, 0805, 1206, 2512

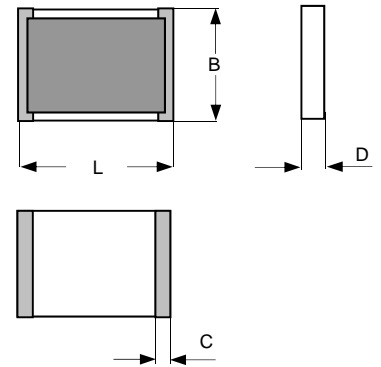
**Features:**

- Chip Resistors in Thin Film Technology
- Contact areas: Nickel-barrier / matte tin
- Resistance element resin-passivated
- Close tolerances (0.05%)
- Low TCR (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 – TCR – packaging  
 Example: *CMF 0805 100K ±0.1% TCR15 Tape 180 mm*

If no requirements for TCR and taping are given, the standard value (highest TCR value in table) will be supplied and packaging is bulk

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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)		75	100	200	300

Ranges	Tolerance / TCR <sup>2)</sup>				
5R1 – <10R	0.1 ... 1% TCR 25/50	0.1 ... 1% TCR 25/50	0.1 ... 1% TCR 25/50	0.1 ... 1% TCR 25/50	0.1 ... 1% TCR 25/50
10R – <47R	0.1 ... 1% TCR 10...50	0.1 ... 1% TCR 10...50	0.1 ... 1% TCR 10...50	0.1 ... 1% TCR 10...50	0.1 ... 1% TCR 10...50
47R – <100R	0.05 ... 1% TCR 5...50	0.05 ... 1% TCR 5...50	0.05 ... 1% TCR 5...50	0.05 ... 1% TCR 5...50	0.05 ... 1% TCR 5...50
100R – 332K	0.05 ... 1% TCR 5...50	0.05 ... 1% TCR 5...50	0.05 ... 1% TCR 5...50	0.05 ... 1% TCR 5...50	0.05 ... 1% TCR 5...50
> 332K – 1M	–	0.05 ... 1% TCR 5 ... 50	0.05 ... 1% TCR 5...50	0.05 ... 1% TCR 5...50	0.05 ... 1% TCR 5...50
> 1M – 2M	–	0.1 ... 1% TCR 5...50	0.1 ... 1% TCR 5...50	0.1 ... 1% TCR 5...50	0.1 ... 1% TCR 5...50
> 2M – 5M	–	–	0.1 ... 1% TCR 15...50	0.1 ... 1% TCR 10...50	0.1 ... 1% TCR 10...50
> 5M – 15M	–	–	–	0.1 ... 1% TCR 10...50	0.1 ... 1% TCR 10...50

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

TCR-Classes: 5, 10, 15, 25, 50 ppm/K

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

<sup>2)</sup> TCR 5: in temperature range 0°C ... +70°C

## 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 $P_{70}/70^{\circ}\text{C}/1000\text{h}$	<0.10%	<0.25%
Damp heat (56d/40°C/96%)	<0.15%	<0.50%

Not specified data according to EN 140401-801 (CECC 40401-801)