

High-Precision-Chip-Resistors

Series CMF

Features

- Design specification CECC 40 401-801
- Extended value range for all designs
- Tight tolerance range (down to 0.05%)
- Low TCR (down to 5 ppm/K)
- Extremely low noise
- Voltage resistant up to 300 VDC
- RoHS – compliant

Technical Data (size-dependent) ¹⁾

Value Range	0603 TCR/R-Tol.	0805 TCR/R-Tol.	1206 TCR/R-Tol.	2512 TC/R-Tol.
5R1 - < 10R	≤ TC 25/± 0.1 %	≤ TC 25/± 0.1 %	≤ TC 25/± 0.1 %	≤ TC 25 ± 0.1 %
10R - < 47R	≤ TC 10/± 0.1 %	≤ TC 10/± 0.1 %	≤ TC 10/± 0.1 %	≤ TC 10 ± 0.1 %
47R - < 100R	≤ TC 5/± 0.05 %	≤ TC 5/± 0.05 %	≤ TC 5/± 0.05 %	≤ TC 5 ± 0.05 %
100R - 10K	≤ TC 5/± 0.05 %	≤ TC 5/± 0.05 %	≤ TC 5/± 0.05 %	≤ TC 5 ± 0.05 %
> 10K - 100K	≤ TC 5/± 0.05 %	≤ TC 5/± 0.05 %	≤ TC 5/± 0.05 %	≤ TC 5 ± 0.05 %
> 100K - 332K	≤ TC 5/± 0.05 %	≤ TC 5/± 0.05 %	≤ TC 5/± 0.05 %	≤ TC 5 ± 0.05 %
> 332K - 511K	-	≤ TC 5/± 0.05 %	≤ TC 5/± 0.05 %	≤ TC 5 ± 0.05 %
> 511K - 1M	-	≤ TC 5/± 0.05 %	≤ TC 5/± 0.05 %	≤ TC 5 ± 0.05 %
> 1M - 2M	-	≤ TC 5/± 0.1 %	≤ TC 5/± 0.1 %	≤ TC 5 ± 0.5 %
> 2M - 5M	-	-	≤ TC 15/± 0.1 %	≤ TC 10 ± 0.1 %
> 5M - 15M	-	-	-	≤ TC 10 ± 0.1 %

1) TCR – classification [ppm/K]: 5; 10; 15; 25; 50
R-Tolerance classification [%]: 0.05; 0.1; 0.25; 0.5; 1

The data shown in this table
are the best attainable values.

Other parameters on request.

Size	Stability Class	0603	0805	1206	2512
Load Capacity	0.5; 1	65	125	250	750
P ₇₀ (mW)	0.1	32	50	100	400
Nominal Voltage (VDC)	0.1; 0.5; 1	100	200	300	300

Stability class according to CECC 40 401-801



Technical Data (general)

Operating temperature range: - 55 °C ... + 125 °C

Solderability (RoHS – compliant): 245 °C; 3 s

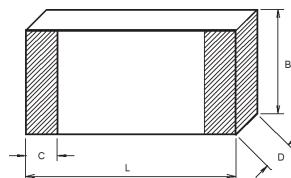
Resistance to soldering heat: 260 °C; 10 s

Long Term Stability	47 Ω - 15 MΩ	< 47 Ω
Storage 125 °C/1,000 h	<± 0.15 %	<± 0.25 %
Storage 155 °C/1,000 h	<± 0.35 %	<± 0.5 %
Continuous load P ₇₀ /70 °C/1,000 h	<± 0.1 %	<± 0.25 %
Temperature/Humidity (56 d/40 °C/96 %)	<± 0.15 %	<± 0.5 %

Data unless otherwise specified: CECC 40 401-801

Packages

RR0603, RR0805, RR1206, RR2512



Dimensions

Size	Metric	L	B	D	C
RR0603	RR1608M	1.6 ^{±0.1}	0.8 ^{±0.1}	0.45 ^{±0.1}	0.3 ^{±0.2}
RR0805	RR2012M	2.0 ^{±0.1}	1.25 ^{±0.1}	0.55 ^{±0.1}	0.4 ^{±0.2}
RR1206	RR3216M	3.2 ^{±0.2}	1.6 ^{±0.15}	0.55 ^{±0.1}	0.5 ^{±0.2}
RR2512	RR6332M	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 contact in mm)

Ordering Data

Example: CMF 0805 - 100 K ± 0.1 % - TK 15 - taped
 Type Unit Tolerance TC form of delivery,
 if not in bulk

Customized Versions

- Layout adjustment
- The parameters are specified by the customer.
- A customized layout is developed and implemented technologically by our own development department.

Delivery form

- Bulk or tape and reel according to DIN IEC 60286-3 (tape width: 8mm, reel diameter: 180 mm)
- Minimum quantity loose packed: 100 pieces per unit
- Minimum quantity for tape and reel: 500 pieces per unit

Sales and Development

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