

Low ohmic series

Type: CNF

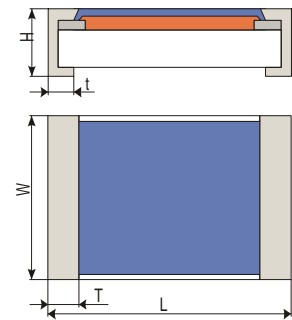
Sizes: 0402, 0603, 0805, 1206, 1210, 1218, 2010, 2512, 2040

Characteristics:

- Chip resistors in thick film technology
- Very low ohmic resistor layers
- Resistance area coated with glass and varnish passivation
- High stability and reliability
- Tight tolerances
- RoHS-conform
- Customer specific barcodes available - also in 2D
- All sizes can be manufactured with the following contact variants
 - ⇒ Electroplated alloy resistant tinned
 - ⇒ Contact with low rest permeability -N, suitable only for reflow soldering method
 - ⇒ Special corrosive gas resistant contact -S, Sulfur resistance verified according to ASTM B 809

Dimensions (in mm):

Size	L Length		W Width		H Depth		t Contact back		T Contact front	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
0402	0,95	1,10	0,45	0,60	0,25	0,40	0,10	0,35	0,05	0,35
0603	1,50	1,70	0,75	0,95	0,35	0,55	0,10	0,50	0,10	0,50
0805	1,85	2,15	1,10	1,40	0,35	0,65	0,15	0,60	0,15	0,60
1206	2,90	3,35	1,45	1,75	0,35	0,65	0,25	0,75	0,15	0,75
1210	3,00	3,30	2,35	2,65	0,50	0,75	0,35	0,85	0,25	0,85
1218	3,00	3,30	4,50	4,80	0,50	0,75	0,35	0,85	0,25	0,85
2010	4,80	5,20	2,30	2,70	0,50	0,75	0,35	0,85	0,25	0,85
2512	6,10	6,50	3,00	3,30	0,50	0,75	0,35	0,85	0,25	0,85
2040	4,90	5,30	10,05	10,35	0,50	0,75	0,35	0,85	0,25	0,85



Packaging units:

Reel Ø	Card tape acc. EN 60286-3	Blister tape
180 mm	5 T pcs. 10 T pcs. for size 0402	4 T pcs.
330 mm	10 T pcs. 20 T pcs.	8 T pcs. 16 T pcs.

Samples possible up to 50 pcs./value

Ordering information:

CNF	- N	0603	0R15	5%	100ppm/K	N	P	5 (optional)
Type	Contact	Size	R- Valu e	± Tolerance	± TCR	Marking	Packaging	pcs. / Reel (T pcs.)
CNF	Standard (without add.) -N (non magnetic) -S (corrosive gas resistant)	0402 to 2040	0R02 to 0R99	1 5 10	100 500	N- only without	P- Card tape B- Blister tape S- Bulk	Depends on size and packaging unit

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Technical data – depending on size:

Size	Nominal voltage U_{max} (V)	Load P_{70} (W)	R-Range	R-Tolerance (± %)	TCR (± ppm/K)	Packaging		
						P	B	S
0402	$U = \sqrt{P \cdot R}$	0,063	0R27 – 0R99	1 / 5 / 10	100	x		x
0603		0,100	0R05 – 0R27	5 / 10	500	x		x
			>0R27 – 0R99	1 / 5 / 10	100	x		x
0805		0,125	0R05 – 0R27	5 / 10	500	x		x
			>0R27 – 0R99	1 / 5 / 10	100	x		x
1206		0,250	0R05 – 0R27	5 / 10	500	x		x
			>0R27 -- 0R99	1 / 5 / 10	100	x		x
1210		0,330	0R05 – 0R27	5 / 10	500	x		x
			>0R27 – 0R99	1 / 5 / 10	100	x		x
1218		1,000	0R02 – 0R10	5 / 10	500		x	x
			>0R10 – 0R99	1 / 5 / 10	100		x	x
2010		0,500	0R05 – 0R27	5 / 10	500		x	x
			>0R27 – 0R99	1 / 5 / 10	100		x	x
2512		1,000	0R05 – 0R27	5 / 10	500		x	x
			>0R27 – 0R99	1 / 5 / 10	100		x	x
2040		2,000	0R02 – 0R10	5 / 10	500		x	x
			>0R10 – 0R99	5 / 10	100		x	x

Technical data - general:

Technical data	
Operating temperature range	-55°C ... +155°C
Climatic category acc. EN 60068	55 / 155 / 56
Solderability acc. EN 60068-2-58	245°C 3s
Soldering heat resistance acc. EN 60068-2-58	±(0,5% + 0,05R) at 260°C 10s
Long time stability	
Storage 155°C / 1000h	±(1,0% + 0,05R)
Endurance P_{70} / 70°C / 1000h	±(0,5% + 0,05R)
Damp heat, steady state (56d / 40°C / 96%)	±(1,0% + 0,05R)

Data, unless specified, acc. EN 140401-802.