

### High power series

Type: CLF

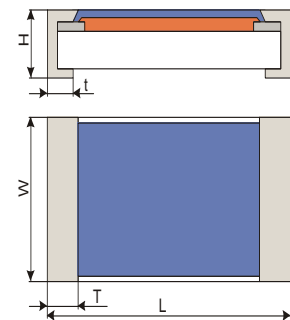
Sizes: 1210, 1218, 2010, 2512

#### Characteristics:

- Chip resistors in thick film technology
- Special layout for high electrical load
- Resistance area coated with glass and varnish passivation
- High stability and reliability
- Tight tolerances ( $\geq 0,5\%$ ) – low temperature coefficient ( $\geq 50\text{ppm/K}$ )
- RoHS-conform
- Customer specific barcodes available - also in 2D
- All sizes can be manufactured with the following contact variants
  - ⇒ Electroplated pure tin
  - ⇒ Contact with low rest permeability -N, suitable only for reflow soldering method (The recommended storage time should not exceed 1 year after delivery)
  - ⇒ Epoxy bondable contact -K
  - ⇒ 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
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



#### Packaging units:

Reel Ø	Card tape acc. EN 60286-3	Blister tape
180 mm	5 T pcs.	4 T pcs.
330 mm	10 T pcs. 20 T pcs.	8 T pcs. 16 T pcs.
Samples on request		

#### Ordering information:

CLF	- N	1210	100k	1%	100ppm/K	K	P	5 (optional)
Type	Contact	Size	R- Value	± Tolerance	± TCR	Marking	Packaging	pcs. / Reel (T pcs.)
CLF	Standard (without add.) -N (non magnetic) -K (epoxy bondable) -S (corrosive gas resistant)	1210 to 2512	1R to 10M	0,5 1 5	50 100	K- only with	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 ( $\pm$ %)	TCR ( $\pm$ ppm/K)	Packaging		
						P	B	S
1210	200	0,50	1R - 10M	0,5 / 1 / 5	50 / 100	x		x
1218	200	1,00	1R - 10M	0,5 / 1 / 5	50 / 100		x	x
2010	300	0,50	1R - 10M	0,5 / 1 / 5	50 / 100		x	x
2512	500	1,00	1R - 10M	0,5 / 1 / 5	50 / 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	$\pm(0,5\% + 0,05R)$ at 260°C 10s
Long time stability	
Storage 155°C / 1000h	$\pm(1,0\% + 0,05R)$
Endurance $P_{70}$ / 70°C / 1000h	$\pm(0,5\% + 0,05R)$
Damp heat, steady state (56d / 40°C / 93%)	$\pm(1,0\% + 0,05R)$

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