

Pulse proof series

Type: **CDI / CLI**

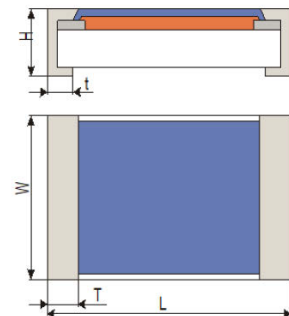
Sizes: **0402, 0603, 0805, 1206, 1210, 1218, 2010, 2512**

Characteristics:

- Chip resistors in thick film technology
- Specially pulse proof resistor layers
- Resistance area coated with glass and varnish passivation
- High stability and reliability
- RoHS-conform and Halogen-free according to IEC 61249-2-21 / IPC 4101B
- 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 date code)
 - ⇒ Sticky 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
0402	0,95	1,05	0,45	0,55	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



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 on request		

Ordering information:

CLI	- N	1210	10k	5%	50ppm/K	N	P	10 (optional)
Type	Contact	Size	R- Value	± Tolerance	± TCR	Marking	Packaging	pcs. / Reel (T pcs.)
CDI CLI	Standard (without add.) -N (non magnetic) -K (epoxy bondable) -S (corrosive gas resistant)	0402 to 2512	1R to 10M	5 10 20	50 100	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 (\pm %)	TCR (\pm ppm/K)	Packaging		
						P	B	S
CDI								
0402	50	0,063	1R - 10M	5 / 10 / 20	50 / 100	x		x
0603	75	0,100	1R - 10M	5 / 10 / 20	50 / 100	x		x
0805	150	0,125	1R - 10M	5 / 10 / 20	50 / 100	x		x
1206	200	0,250	1R - 10M	5 / 10 / 20	50 / 100	x		x
CLI								
1210	200	0,500	1R - 10M	5 / 10 / 20	50 / 100	x		x
1218	200	1,000	1R - 10M	5 / 10 / 20	50 / 100		x	x
2010	300	0,500	1R - 10M	5 / 10 / 20	50 / 100		x	x
2512	500	1,000	1R - 10M	5 / 10 / 20	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.

Behavior of pulse proof chip resistors (CDI / CLI) under pulse load:

