

### Thick film series - Standard

Type: CDF

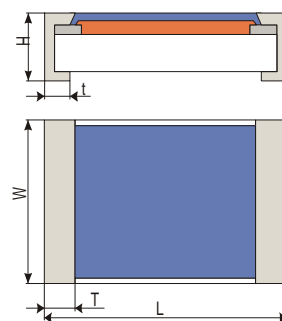
Sizes: 0402, 0603, 0805, 1206

#### Characteristics:

- Chip resistors in thick film technology
- Resistance area coated with glass and varnish passivation
- High stability and reliability
- Tight tolerances ( $\geq 0,5\%$ ) – low temperature coefficient
- 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
<b>0402</b>	0,95	1,10	0,45	0,60	0,25	0,40	0,10	0,35	0,05	0,35
<b>0603</b>	1,50	1,70	0,75	0,95	0,35	0,55	0,10	0,50	0,10	0,50
<b>0805</b>	1,85	2,15	1,10	1,40	0,35	0,65	0,15	0,60	0,15	0,60
<b>1206</b>	2,90	3,35	1,45	1,75	0,35	0,65	0,25	0,75	0,15	0,75



#### Packaging units:

Reel Ø	Card tape acc. EN 60286-3
<b>180 mm</b>	5 T pcs. 10 T pcs. for size 0402
<b>330 mm</b>	10 T pcs. 20 T pcs.
Samples on request	

#### Ordering information:

CDF	- N	0603	10k	1%	50ppm/K	K	P	5 (optional)
Type	Contact	Size	R- Value	± Tolerance	± TCR	Marking	Packaging	pcs. / Reel (T pcs.)
CDF	Standard (without add.) -N (non magnetic) -K (epoxy bondable) -S (corrosive gas resistant)	0402 0603 0805 1206	1R . to 10M	0,5 1,0	50 100	K- with (from size 0603) N- without (only size 0402)	P- Card tape S- Bulk	Depends on size and packaging unit

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**Technical data – depending on size:**

Size	Nominal voltage U <sub>max</sub> (V)	Load P <sub>70</sub> (W)	R-Range	R-Tolerance (± %)	TCR (± ppm/K)	Packaging		
						P	B	S
0402	50	0,063	1R - 10M	1,0	50 / 100	x		x
0603	75	0,100	1R - 10M	0,5 / 1,0	50 / 100	x		x
0805	150	0,125	1R - 10M	0,5 / 1,0	50 / 100	x		x
1206	200	0,250	1R - 10M	0,5 / 1,0	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	±( 0,5% + 0,05R ) at 260°C 10s
Long time stability	
Storage 155°C / 1000h	± ( 1,0% + 0,05R )
Endurance P <sub>70</sub> / 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.