

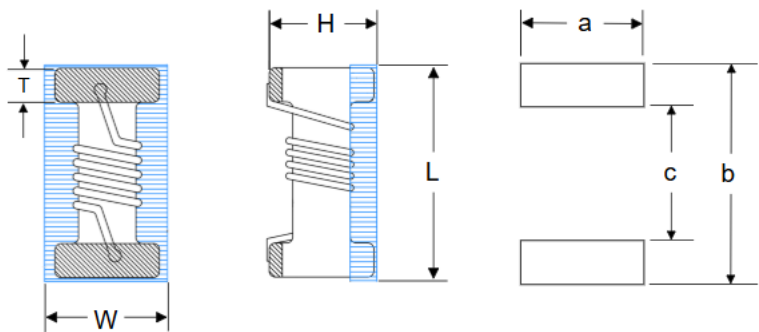
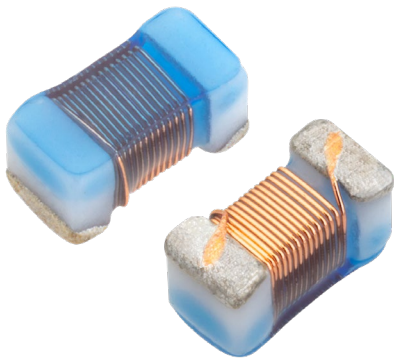
CL Series
0402 Case Size



CL Series Ceramic Core Inductors

These inductors deliver high energy efficiency and consistent inductance across a broad frequency range, making them ideal for designs in the medical and defence markets. Knowles can design inductors where Q meets or exceeds industry leader inductors. These designs are also non-magnetic and comply with MRI industry non-magnetic requirements.

Electrical Details	
Inductance Range	1.0nH to 680nH
Core Material	Ceramic
Termination:(2)	Matte tin over copper over silver
Operating Temp. Range	-55°c to +125°c
Environmental	RoHS Compliant, halogen Free



Reel Dia.		QTY	Dimension							
T	178mm	10000	mm	1.1	0.64	0.64	0.2	0.65	1.2	0.45
	7"		Inch	0.043	0.025	0.025	0.008	0.026	0.047	0.018
			Tolerance	±0.2	±0.2	±0.2	±0.05	Recommended		
				±0.007	±0.007	±0.007	±0.002			

Specifications

Part Number	Inductance (nH)	Tolerance	Q min	SRF Min (MHz)	DCR (Ohm) Max	Current rating (mA)
CL0402-#102*UL4x	1.0	±0.2nH,±0.3nH	112 @ 2.4 GHz	18000	0.023	2217
CL0402-#222*UL4x	2.2	±0.2nH,±0.3nH	120 @ 2.4 GHz	16000	0.023	2189
CL0402-#332*UL4x	3.3	±0.2nH,±0.3nH	140 @ 2.4 GHz	14200	0.047	1535
CL0402-#392*UL4x	3.9	±0.2nH,±0.3nH	177 @ 2.4 GHz	12600	0.047	1529
CL0402-#103*UL4x	10	±2%,±5%	107 @ 1.7 GHz	7400	0.117	948
CL0402-#183*UL4x	18	±2%,±5%	80 @ 900 MHz	5500	0.164	801
CL0402-#363*UL4x	36	±2%,±5%	79 @ 900 MHz	3700	0.415	501
CL0402-#473*UL4x	47	±2%,±5%	77 @ 900 MHz	3360	0.415	501
CL0402-#104*UL4x	100	±2%,±5%	69 @ 900 MHz	2380	1.682	249
CL0402-#224*UL4x	220	±2%,±5%	41 @ 900 MHz	1000	2.337	211

Selected values from range, please contact sales for full list of inductance values.

Ordering information - For Example: CL0402-222JUL4T

CL0402	#	103	*	U	4	x
Case Size	Termination	Inductance	Tolerance	Series	Version	Packaging
CL0402	- 2 Copper barrier	See Chart	B: ±0.2nH S: ±0.3nH G: ±2% J: ±5%	U - CL Series	See Chart	T 178mm / 7"

Performance

Key Test	Test Condition (per AEC-Q200)	Min Specification
Temperature Cycling	-55°C to +125°C	1000 cycles
High Temperature Operating Life	+125°C, (powered)	1000 hr
Humidity Bias	85°C & 85%RH, (unpowered)	1000 hr, (<5% change in inductance)
High Temperature Storage	+125°C	1000 hr
Push Test	Termination Stress Test	1kg for 60 sec, no damage
Substrate Bend Test	2mm deflection of pcb	No damage

Web www.knowlescapacitors.com © Knowles 2026

Issue 1 Release Date: 20 May 2026

Email Europe: KPD-Europe-sales@knowles.com | Asia: KPD-Asia-sales@knowles.com | USA: KPD-NA-sales@knowles.com

This datasheet is for a standard item and is confirmed valid on the date generated, the latest published data for this part may differ and is available at <http://www.knowlescapacitors.com> or by contacting us.