

A Series
0402 Case Size

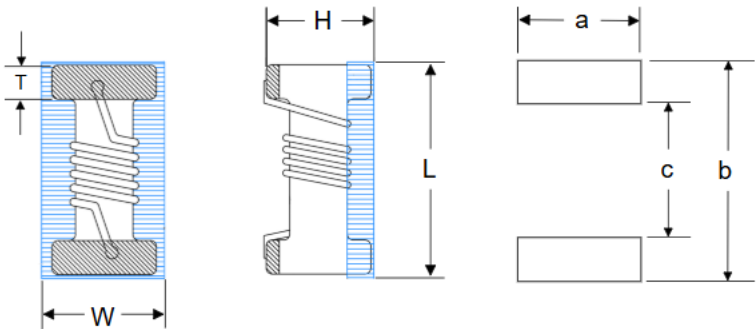
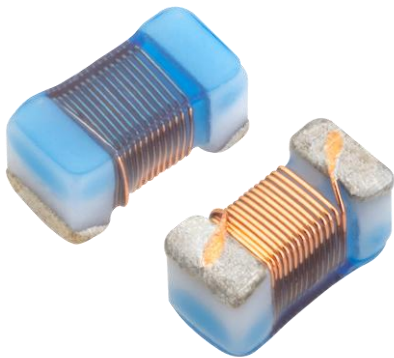


A Series Ceramic Core Inductors

These inductors provide reliable performance and consistent inductance across a broad frequency range, making them well suited for cost-sensitive and high-volume applications. Knowles designs focus on delivering competitive Q performance that meets industry standards while maintaining strong value and manufacturability.

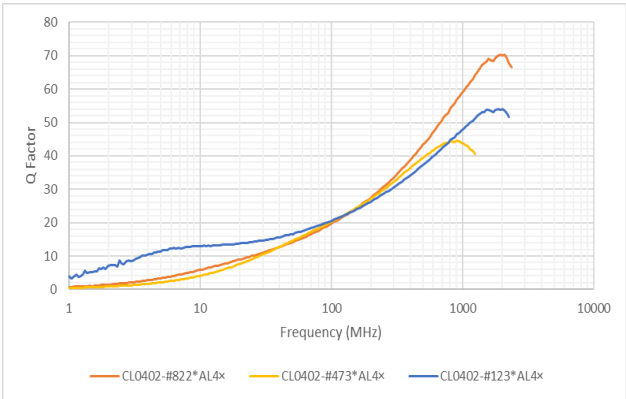
Electrical Details	
Inductance Range	1.0nH to 100nH
Core Material	Ceramic
Termination: (J)	matte tin over nickel over silver
Termination: (2)*	matte tin over copper over silver
Operating Temp. Range	-55°C to +125°C
Environmental	RoHS Compliant, halogen Free

* Not currently available, contact sales for release schedule timeline.

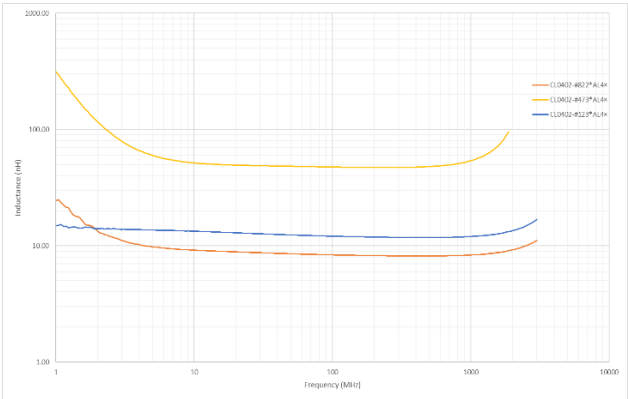


Reel Dia.		QTY	Dimension							
T	178mm	10000	mm	L	H	W	T	a	b	c
	7"		Inch	1.0	0.5	0.55	0.2	0.65	1.2	0.45
			Tolerance	± 0.1 ± 0.004	± 0.1 ± 0.004	± 0.1 ± 0.004	± 0.1 ± 0.004	Recommended		

Q vs Frequency



L vs Frequency



Specifications

Part Number	Inductance (nH)	Tolerance	Q min	SRF Min (MHz)	DCR (Ohm) Max	Current rating (mA)
CL0402-#102*AL4×	1.0 nH	±0.2nH,±0.3nH	13 (250MHz)	6000	0.045	1360
CL0402-#152*AL4×	1.5 nH	±0.2nH,±0.3nH	14 (250MHz)	6000	0.060	1100
CL0402-#222*AL4×	2.2 nH	±0.2nH,±0.3nH	18 (250MHz)	10800	0.070	960
CL0402-#392*AL4×	3.9 nH	±0.2nH,±0.3nH	20 (250MHz)	5800	0.066	840
CL0402-#472*AL4×	4.7 nH	±0.2nH,±0.3nH	15 (250MHz)	4775	0.130	640
CL0402-#562*AL4×	5.6 nH	±0.2nH,±0.3nH	23 (250MHz)	5800	0.083	760
CL0402-#682*AL4×	6.8 nH	±0.2nH,±5%	20 (250MHz)	4800	0.083	680
CL0402-#822*AL4×	8.2 nH	±0.2nH,±5%	25 (250MHz)	4400	0.104	680
CL0402-#103*AL4×	10 nH	±2%,±5%	23 (250MHz)	3900	0.195	480
CL0402-#153*AL4×	15 nH	±2%,±5%	26 (250MHz)	3280	0.172	560
CL0402-#183*AL4×	18 nH	±2%,±5%	25 (250MHz)	3100	0.23	520
CL0402-#223*AL4×	22 nH	±2%,±5%	25(250MHz)	2800	0.3	400
CL0402-#273*AL4×	27 nH	±2%,±5%	26 (250MHz)	2480	0.298	400
CL0402-#303*AL4×	30 nH	±2%,±5%	25 (250MHz)	2350	0.3	400
CL0402-#393*AL4×	39 nH	±2%,±5%	25 (250MHz)	2100	0.55	320
CL0402-#473*AL4×	47 nH	±2%,±5%	26 (200MHz)	2100	0.83	210
CL0402-#563*AL4×	56 nH	±5%	22 (200MHz)	1760	0.97	200
CL0402-#683*AL4×	68 nH	±5%	22 (200MHz)	1620	1.12	180
CL0402-#823*AL4×	82 nH	±5%	20 (150MHz)	1500	1.25	150
CL0402-#104*AL4×	100 nH	±5%	20 (150MHz)	1300	2.52	120

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

Ordering information - For Example: CL0402-222JAL4T

CL0402	#	103	*	AL	4	x
Case Size	Termination	Inductance	Tolerance	Series	Version	Packaging
CL0402	-J Nickel barrier	See Chart	B: ±0.2nH S: ±0.3nH G: ±2% J: ±5%	AL - A 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	1 kg for 60 sec, no damage
Substrate Bend Test	2mm deflection of pcb	No damage