

A Series
0603 Case Size

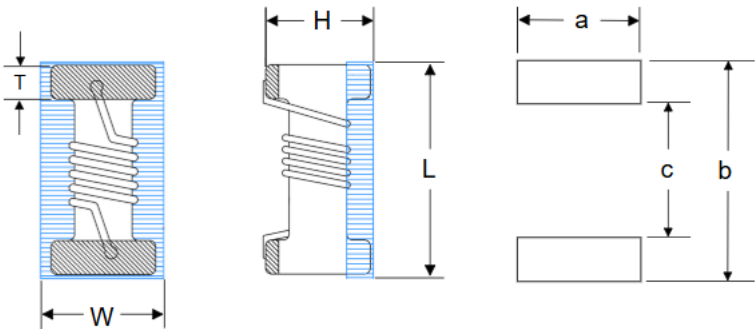
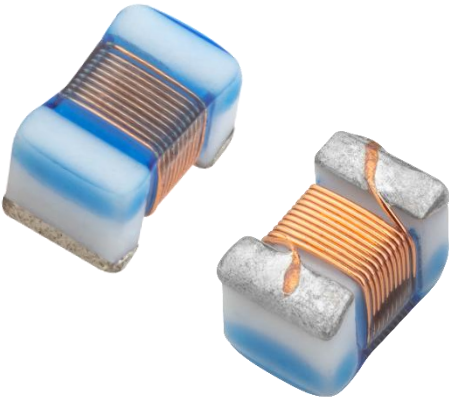


A Series Ceramic Core Inductors

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.

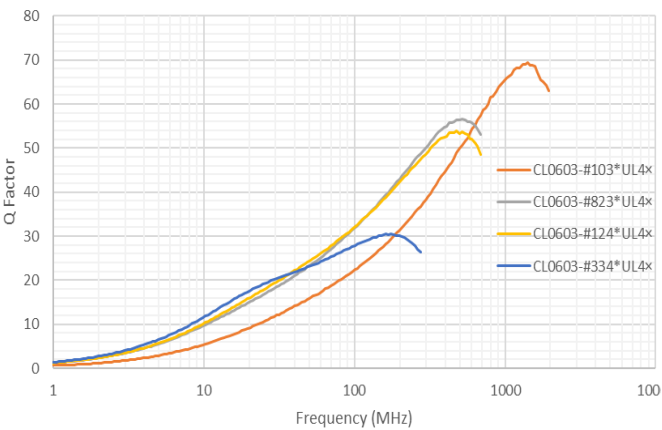
Electrical Details	
Inductance Range	1.6nH to 390nH
Core Material	Ceramic
Termination: (J)	matte tin over nickel over silver
Termination: (2)*	matte tin over copper over silver
Operating Temp. Range	-55°c to +125°c
Environmental	RoHS Compliant, halogen Free

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

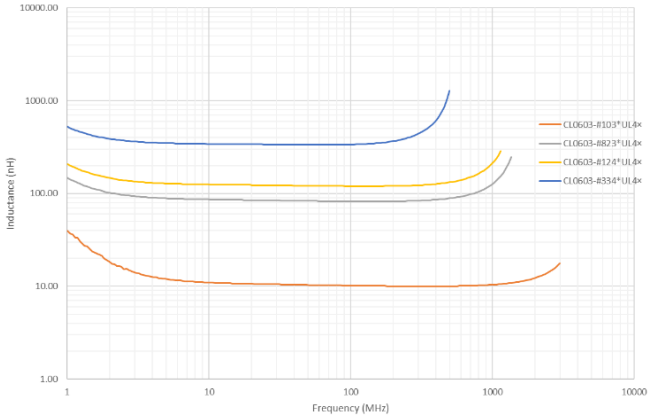


Reel Dia.			QTY	Dimension							
					L	H	W	T	a	b	c
T	178mm	3000		mm	1.6	1.05	1.05	0.35	1	1.9	0.65
	7"			Inch	0.063	0.041	0.041	0.014	0.039	0.075	0.026
R	330mm	10000		Tolerance	± 0.2	± 0.2	± 0.2	± 0.1	Recommended		
	13"				± 0.008	± 0.008	± 0.008	± 0.004			

Q vs Frequency



L vs Frequency



Specifications

Part Number	Inductance (nH)	Tolerance	Q min	SRF Min (MHz)	DCR (Ohm) Max	Current rating (mA)
CL0603-#162*AL4×	1.6 nH	±0.2nH,±0.3nH	24 (250MHz)	12500	0.03	700
CL0603-#682*AL4×	6.8 nH	±0.2nH,±0.3nH	30 (250MHz)	5800	0.11	700
CL0603-#103*AL4×	10 nH	* J (±5%), G (±2%)	30 (250MHz)	4800	0.13	700
CL0603-#123*AL4×	12 nH	* J (±5%), G (±2%)	35 (250MHz)	4000	0.13	700
CL0603-#153*AL4×	15 nH	* J (±5%), G (±2%)	35 (250MHz)	4000	0.17	700
CL0603-#183*AL4×	18 nH	* J (±5%), G (±2%)	38 (250MHz)	3100	0.17	700
CL0603-#223*AL4×	22 nH	* J (±5%), G (±2%)	38 (250MHz)	3000	0.22	700
CL0603-#273*AL4×	27 nH	* J (±5%), G (±2%)	40 (250MHz)	2800	0.22	600
CL0603-#393*AL4×	39 nH	* J (±5%), G (±2%)	40 (250MHz)	2800	0.26	400
CL0603-#473*AL4×	47 nH	* J (±5%), G (±2%)	40 (200MHz)	2000	0.28	600
CL0603-#683*AL4×	68 nH	* J (±5%), G (±2%)	40 (200MHz)	1700	0.34	600
CL0603-#823*AL4×	82 nH	* J (±5%), G (±2%)	35 (150MHz)	1700	0.54	400
CL0603-#104*AL4×	100 nH	* J (±5%), G (±2%)	35 (150MHz)	1400	0.63	400
CL0603-#124*AL4×	120 nH	* J (±5%), G (±2%)	32 (150MHz)	1600	1.3	180
CL0603-#154*AL4×	150 nH	* J (±5%), G (±2%)	35 (150MHz)	1000	0.92	280

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

Ordering information - For Example: CL0603-103JAL4T

CL0603	#	103	*	AL	4	x
Case Size	Termination	Inductance	Tolerance	Series	Version	Packaging
CL0603	-J Nickel barrier	See Chart	B: ±0.2nH S: ±0.3nH G: ±2% J: ±5%	AL - A Series	See Chart	T 178mm / 7" R 330mm / 13"

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