

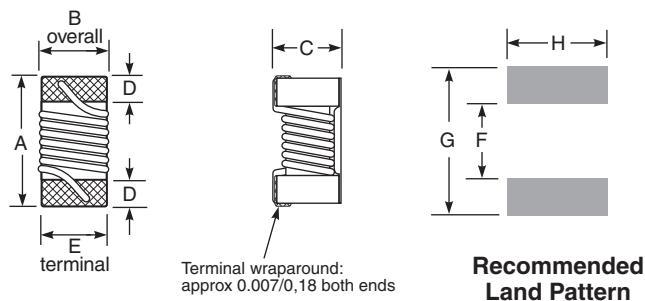


# Chip Inductors – 0603ME (1608)

The 0603ME chip inductors offer excellent Q values, especially at use frequencies, high SRFs, very low DCR and outstanding current handling capabilities.

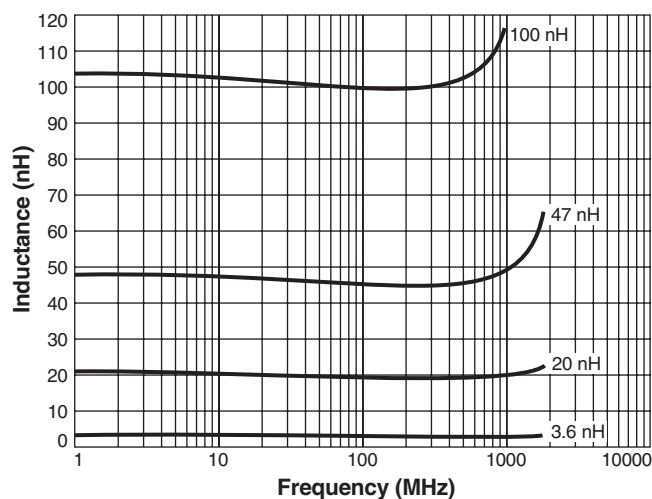
Designed to be compatible with other industry standards, they are available in 45 inductance values from 2.2 nH to 470 nH, some not found in any of our other 0603 series.

Contact Coilcraft to request free evaluation samples.

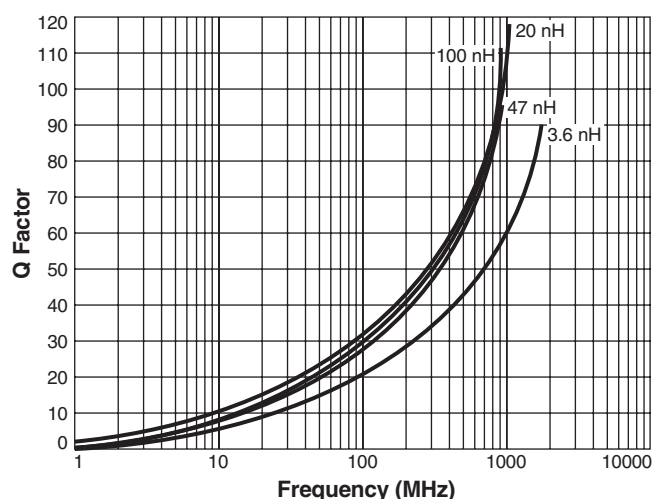


A	B	C	D	E
0.063 ±0.008	0.031 ±0.008	0.031 ±0.008	0.012 ±0.004	0.031 ±0.006
1,6 ±0,2	0,8 ±0,2	0,8 ±0,2	0,3 ±0,1	0,8 ±0,15
F	G	H		
0.027	0.075	0.035		
0,7	1,9	0,9		

## Typical L vs Frequency



## Typical Q vs Frequency



**Core material** Ceramic

**Terminations** RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

**Ambient temperature** -40°C to +125°C

**Storage temperature** Component: -40°C to +125°C.  
tape and reel packaging: -40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Temperature Coefficient of Inductance (TCL)** +25 to +125 ppm/°C

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

One per billion hours / one billion hours, calculated per Telcordia SR-332

**Packaging** 2000 per 7" reel. Paper tape: 8 mm wide, 1 mm thick, 4 mm pocket spacing

**PCB washing** Only pure water or alcohol recommended



# 0603ME Series (1608)

Part number <sup>1</sup>	Inductance <sup>2</sup> (nH)	Percent tolerance <sup>3</sup>	Q <sup>4</sup> nom	Q typ at 300 MHz	Q typ at 800 MHz	Q typ at 1.5 GHz	SRF min <sup>5</sup> (MHz)	DCR max <sup>5</sup> (Ohms)	Irms <sup>6</sup> (mA)
0603ME-2N2XJL_	2.2	<b>5</b>	29	39	60	83	13500	0.024	2500
0603ME-3N6XJL_	3.6	<b>5,2</b>	25	45	75	95	6000	0.059	1600
0603ME-3N9XJL_	3.9	<b>5,2</b>	35	45	75	95	6000	0.059	1600
0603ME-4N3XJL_	4.3	<b>5,2</b>	35	45	75	95	6000	0.059	1600
0603ME-4N7XJL_	4.7	<b>5,2</b>	35	39	64	88	6000	0.047	1600
0603ME-5N6XJL_	5.6	<b>5,2</b>	35	45	75	95	6000	0.082	1400
0603ME-6N2XJL_	6.2	<b>5,2</b>	35	45	75	95	6000	0.082	1400
0603ME-6N8XJL_	6.8	<b>5,2</b>	35	45	80	100	6000	0.082	1400
0603ME-7N5XJL_	7.5	<b>5,2</b>	35	45	80	100	6000	0.090	1300
0603ME-8N2XJL_	8.2	<b>5,2</b>	26	50	84	122	6000	0.052	1250
0603ME-8N7XJL_	8.7	<b>5,2</b>	22	41	68	96	6000	0.097	1100
0603ME-9N5XJL_	9.5	<b>5,2</b>	24	43	73	103	6000	0.099	1100
0603ME-10NXJL_	10	<b>5,2</b>	35	45	80	100	6000	0.11	1100
0603ME-11NXJL_	11	<b>5,2</b>	35	45	80	100	6000	0.11	1100
0603ME-12NXJL_	12	<b>5,2</b>	35	50	85	100	6000	0.13	1050
0603ME-13NXJL_	13	<b>5,2</b>	35	50	85	100	6000	0.13	1050
0603ME-15NXJL_	15	<b>5,2</b>	40	55	90	105	6000	0.13	1400
0603ME-16NXJL_	16	<b>5,2</b>	40	55	90	105	5500	0.16	1000
0603ME-18NXJL_	18	<b>5,2</b>	40	55	90	105	5500	0.16	1000
0603ME-20NXJL_	20	<b>5,2</b>	40	55	90	105	4900	0.16	1000
0603ME-22NXJL_	22	<b>5,2</b>	40	55	90	105	4600	0.17	950
0603ME-24NXJL_	24	<b>5,2</b>	40	50	85	95	3800	0.21	950
0603ME-27NXJL_	27	<b>5,2</b>	40	50	85	95	3700	0.22	750
0603ME-30NXJL_	30	<b>5,2</b>	40	50	85	90	3300	0.23	650
0603ME-33NXJL_	33	<b>5,2</b>	40	50	85	90	3200	0.23	650
0603ME-36NXJL_	36	<b>5,2</b>	40	50	85	90	2900	0.26	600
0603ME-39NXJL_	39	<b>5,2</b>	40	50	85	90	2800	0.26	600
0603ME-43NXJL_	43	<b>5,2</b>	40	50	85	75	2700	0.27	600
0603ME-47NXJL_	47	<b>5,2</b>	38	50	85	75	2600	0.29	550
0603ME-51NXJL_	51	<b>5,2</b>	38	50	85	75	2500	0.33	550
0603ME-56NXJL_	56	<b>5,2</b>	38	50	85	75	2400	0.35	530
0603ME-62NXJL_	62	<b>5,2</b>	38	50	85	75	2300	0.43	450
0603ME-68NXJL_	68	<b>5,2</b>	38	50	85	75	2200	0.38	520
0603ME-72NXJL_	72	<b>5,2</b>	34	50	80	60	2100	0.56	470
0603ME-75NXJL_	75	<b>5,2</b>	34	50	80	60	2050	0.56	450
0603ME-82NXJL_	82	<b>5,2</b>	34	50	80	55	2000	0.60	400
0603ME-91NXJL_	91	<b>5,2</b>	34	45	80	55	1900	0.64	400
0603ME-R10XJL_	100	<b>5,2</b>	34	45	75	50	1800	0.68	380
0603ME-R11XJL_	110	<b>5,2</b>	32	45	75	50	1350	1.2	350
0603ME-R12XJL_	120	<b>5,2</b>	32	45	75	50	1600	1.3	310
0603ME-R13XJL_	130	<b>5,2</b>	32	45	75	50	1450	1.4	250
0603ME-R15XJL_	150	<b>5,2</b>	32	45	70	—	1400	1.5	240
0603ME-R16XJL_	160	<b>5,2</b>	32	45	65	—	1350	2.1	210
0603ME-R18XJL_	180	<b>5,2</b>	25	45	60	—	1300	2.2	200
0603ME-R47XGL_	470	5,2	28	—	—	—	650	6.0	120

1. When ordering, specify **tolerance, termination and packaging** codes:

**0603ME-R18XJLW**

**Tolerance:** G = 2% J = 5% (Table shows stock tolerances in bold.)

**Termination:** L = RoHS compliant silver-palladium-platinum-glass frit.  
Special order: T = RoHS tin-silver-copper (95.5/4/0.5)  
or S = non-RoHS tin-lead (63/37).

**Packaging:** W = 7" machine-ready reel, EIA-481 punched paper tape (2000 parts per full reel).

U = Less than full reel. In tape, but not machine ready.  
To have a leader and trailer added (\$25 charge),  
use code letter W instead.

2. Inductance measured at 100 MHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured at 100 MHz using an Agilent/HP4291A with Agilent/HP 16193 test fixture.

5. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.

6. DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF858 test fixture.

7. Current that causes a 20°C rise from 25°C ambient.

8. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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