

High Frequency, Surface Mount, Laser Spiral, Coated Inductors



ELECTRICAL SPECIFICATIONS

Inductance Range: 1.0nH to 100nH
Inductance and Tolerance: $\pm 0.3\text{nH}$ for 1.0 - 5.6nH
 $\pm 5\%$ for 6.8nH to 100nH
Operating Temperature: -40°C to +100°C
Core Material: Ceramic

FEATURES

- Very small in size
- High self-resonant frequency values
- High Q values relative to size at higher frequencies
- Coated coil provides protection and moisture resistance
- Compatible with vapor phase and infrared reflow soldering
- Tape and reel packaging for automatic handling, 10,000/reel, EIA-481
- L and Q value not affected by mounting orientation

TEST EQUIPMENT

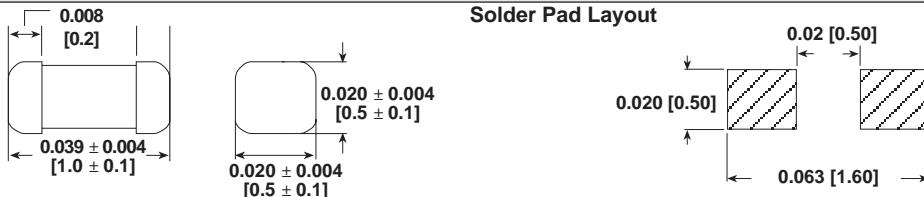
- Inductance and Q measured on HP4291B
- SRF measured on HP8753E
- DCR measured on HP4338B

STANDARD ELECTRICAL SPECIFICATIONS

INDUCTANCE (nH)	TEST FREQUENCY L (MHz)	Q TYPICAL	TEST FREQUENCY Q (MHz)	SELF-RESONANT FREQUENCY MINIMUM (MHz)	DCR MAXIMUM (Ohms)	RATED DC* CURRENT (mA)
1.0	$\pm 0.3\text{nH}, 0.2\text{nH}$	100	21	800	6000	0.05
1.2	$\pm 0.3\text{nH}, 0.2\text{nH}$	100	21	800	6000	0.06
1.5	$\pm 0.3\text{nH}, 0.2\text{nH}$	100	21	800	6000	0.07
1.8	$\pm 0.3\text{nH}, 0.2\text{nH}$	100	21	800	6000	0.08
2.2	$\pm 0.3\text{nH}, 0.2\text{nH}$	100	21	800	6000	0.09
2.7	$\pm 0.3\text{nH}, 0.2\text{nH}$	100	21	800	5500	0.10
3.3	$\pm 0.3\text{nH}, 0.2\text{nH}$	100	21	800	5500	0.12
3.9	$\pm 0.3\text{nH}, 0.2\text{nH}$	100	20	800	5200	0.15
4.7	$\pm 0.3\text{nH}, 0.2\text{nH}$	100	20	800	4800	0.17
5.6	$\pm 0.3\text{nH}, 0.2\text{nH}$	100	20	800	4600	0.19
6.8	$\pm 5\%$	100	19	800	4000	0.30
8.2	$\pm 5\%$	100	19	800	3500	0.35
10	$\pm 5\%, 2\%$	100	19	800	2800	0.41
12	$\pm 5\%, 2\%$	100	19	800	2800	0.45
15	$\pm 5\%, 2\%$	100	19	800	2500	0.60
18	$\pm 5\%, 2\%$	100	19	800	2200	0.70
22	$\pm 5\%, 2\%$	100	19	800	2000	0.80
27	$\pm 5\%, 2\%$	100	19	800	1800	1.20
33	$\pm 5\%, 2\%$	100	18	800	1800	1.40
39	$\pm 5\%, 2\%$	100	18	800	1800	1.70
47	$\pm 5\%, 2\%$	100	17	800	1800	2.10
56	$\pm 5\%, 2\%$	100	17	800	1500	2.50
68	$\pm 5\%, 2\%$	100	15	800	1500	4.00
82	$\pm 5\%, 2\%$	100	15	800	1400	4.50
100	$\pm 5\%, 2\%$	100	14	800	1200	5.50

*Value obtained when current flows and temperature has risen 15°C

DIMENSIONS in inches [millimeters]



DESCRIPTION

IMC-0402
MODEL

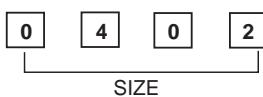
10nH
INDUCTANCE VALUE

$\pm 5\%$
INDUCTANCE TOLERANCE

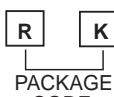
SAP PART NUMBERING GUIDELINES (INTERNAL)



PRODUCT FAMILY



SIZE



PACKAGE CODE



INDUCTANCE
VALUE



TOL.

See the end of this data book for conversion tables