Chip Inductors

INDUCTORS SERIES

Multilayer chip inductors use magnetic material and multilayer technology in producing revolutionary inductors which do not use any wire windings. Ferrite paste and electronic conductor paste are alternately layered and sintered into a completely monolithic structure to form an inductor with a perfectly closed magnetic circuit and an excellent magnetic shield.

FEATURES

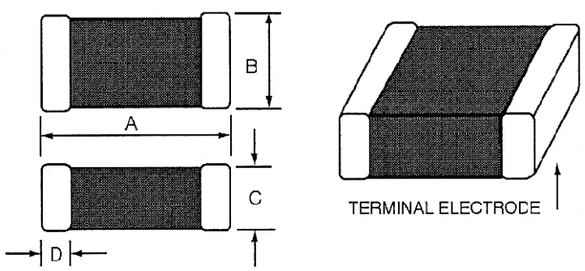
- ☐ Smallest inductor possible.
- ☐ No cross coupling between inductor due to magnetic shield. Ideal for high density installation.
- ☐ Perfect shape for mounting, with no directionality.
- ☐ Excellent solderability and high heat resistance for either flow or reflow soldering.
- ☐ Monolithic structure for high reliability

PRODUCT IDENTIFICATION

I	N	03	x	33	4	M	-	10U
(a)	(b)	(c)	(d)	(e)	(f)	(g)		(h)

(a) Inductor Series
(b) Characteristics series- N:Ferrite Series U:UHF Band Series
(c) Dimension - Example: 03=0603, 05=0805, 06=1206, 10=1210, 18=1806, 12=1812
(d) No use
(e) Thickness - C (in inch) Example:31=0.031, 33=0.033, 49=0.049, 43=0.043, 63=0.063
(f) Packaging PCS/REEL 4=4,000 3=3,000 2=2,000 A=1,500 B=2,500 C=3,500
(g) Tolerance- J=±5% K=±10% M=±20% S=±25%
(h) Inductance 1U=1uH, 10U=10uH, 47N=47nH

SHAPES AND DIMENSIONS

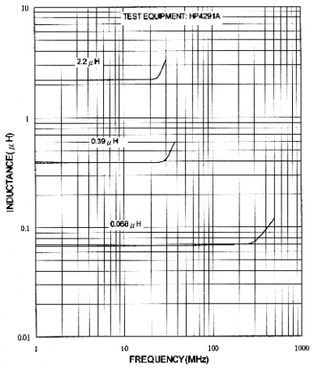


Dimensions : mm (inch)

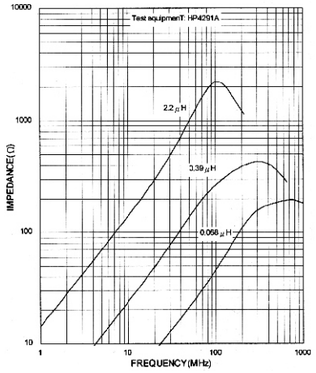
Parts No.	A	B	C	D
I ☐ 03 ☐ 31 ☐ M-☐☐☐☐☐ (0603) (1608)	1.6±0.20 (0.063±0.008)	0.8±0.20 (0.031±0.008)	0.8±0.20 (0.031±0.008)	0.30±0.20 (0.012±0.008)
I ☐ 05 ☐ 35 ☐ M-☐☐☐☐☐ (0805) (2012)	2.00±0.20 (0.079±0.008)	1.2±0.20 (0.047±0.008)	0.9±0.20 (0.035±0.008)	0.50±0.30 (0.020±0.012)
I ☐ 05 ☐ 47 ☐ M-☐☐☐☐☐ (0805) (2012)	2.0±0.2 (0.079±0.008)	1.2±0.20 (0.047±0.008)	1.2±0.20 (0.047±0.008)	0.50±0.30 (0.020±0.012)
I ☐ 06 ☐ 43 ☐ M-☐☐☐☐☐ (1206) (3216)	3.2±0.20 (0.126±0.008)	1.6±0.20 (0.063±0.008)	1.1±0.20 (0.043±0.008)	0.50±0.30 (0.020±0.012)
I ☐ 06 ☐ 63 ☐ M-☐☐☐☐☐ (1206) (3216)	3.2±0.20 (0.126±0.008)	1.6±0.20 (0.063±0.008)	1.6±0.20 (0.063±0.008)	0.50±0.30 (0.020±0.012)

IN Series

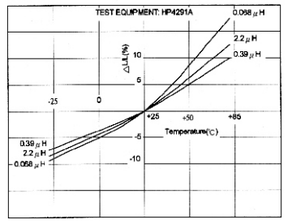
INDUCTANCE vs. FREQUENCY CHARACTERSTICS



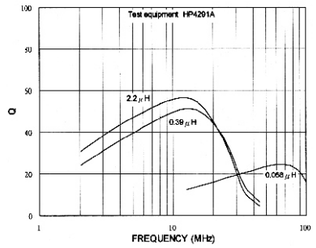
IMPEDANCE vs. FREQUENCY CHARACTERSTICS



INDUCTANCE vs. TEMPERATURE CHARACTERSTICS



Q vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS (Ferrite)
0603 SIZE

Part No.	Inductance(uH)	Q Min	L,Q Test Frequancy (Mhz)	Self-Resonant Frequency (Mhz)	D.C Resistance (Ω)max.	Rated Currency(mA) Max
IN03x31☐M-47N	0.047±20%	10	50	260	0.30	50
IN03x31☐M-68N	0.068±20%	10	50	250	0.30	50
IN03x31☐K-100N	0.10±10%	15	25	240	0.50	50
IN03x31☐K-120N	0.12±10%	15	25	205	0.50	50
IN03x31☐K-150N	0.15±10%	15	25	180	0.60	50
IN03x31☐K-180N	0.18±10%	15	25	165	0.60	50
IN03x31☐K-220N	0.22±10%	15	25	150	0.80	50
IN03x31☐K-270N	0.27±10%	15	25	136	0.80	50
IN03x31☐K-330N	0.33±10%	15	25	125	0.85	35
IN03x31☐K-390N	0.39±10%	15	25	110	1.00	35
IN03x31☐K-470N	0.47±10%	15	25	105	1.35	35
IN03x31☐K-560N	0.56±10%	15	25	95	1.55	35
IN03x31☐K-680N	0.68±10%	15	25	90	1.70	35
IN03x31☐K-820N	0.82±10%	15	25	85	2.10	35
IN03x31☐K-1U	1.0±10%	35	10	75	0.60	25
IN03x31☐K-1U2	1.2±10%	35	10	65	0.80	25
IN03x31☐K-1U5	1.5±10%	35	10	60	0.80	25
IN03x31☐K-1U8	1.8±10%	35	10	55	0.95	25
IN03x31☐K-2U2	2.2±10%	35	10	50	1.15	15
IN03x31☐K-2U7	2.7±10%	35	10	45	1.35	15
IN03x31☐K-3U3	3.3±10%	35	10	40	1.55	15
IN03x31☐K-3U9	3.9±10%	35	10	35	1.70	15
IN03x31☐K-4U7	4.7±10%	35	10	33	2.10	15
IN03x31☐K-5U6	5.6±10%	35	4	22	1.55	5
IN03x31☐K-6U8	6.8±10%	35	4	20	1.70	5
IN03x31☐K-8U2	8.2±10%	35	4	18	2.10	5
IN03x31☐K-10U	10.0±10%	30	2	17	1.85	3
IN03x31☐K-12U	12.0±10%	30	2	15	2.10	3