

# MULTILAYER CHIP INDUCTORS

## TL SERIES (Ferrite)



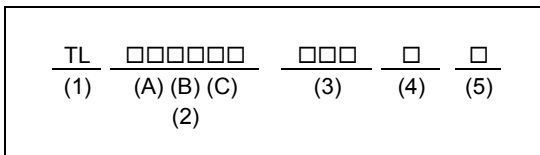
### FEATURES

- Monolithic structure for highly reliable surface mount applications.
- Excellent solderability and high heat resistance for either flow or reflow soldering.
- No cross coupling between inductors due to magnetic shield. Ideal for high density installation.
- Superior Q characteristics guaranteed over the wide frequency allow high frequency application.
- Dimensions are suitable for automatic mounting.

### APPLICATIONS

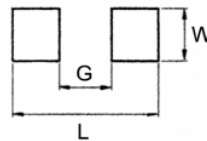
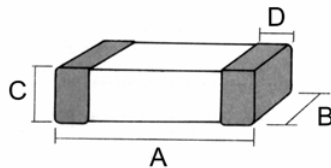
- Prevention of electromagnetic interference to signals on the secondary side of electric equipment.

### PRODUCT IDENTIFICATIONS



- (1) Product Symbol: Multilayer Chip Inductors
- (2) Dimensions: Length (A) × Width (B) × Thickness (C)
- (3) Inductance
- (4) Tolerance
- (5) Packaging style: B = bulk T = Tape & Reel

### SHAPES AND DIMENSIONS / RECOMMENDED PC BOARD PATTERN



Dimensions in mm ( inch )

TYPE	A	B	C	D	L	W	G
160808	1.6±0.2 (0.063±0.008)	0.8±0.2 (0.031±0.008)	0.8±0.2 (0.031±0.008)	0.3±0.2 (0.012±0.008)	2.1 (0.083)	0.7 (0.028)	0.7 (0.028)
201209	2.0±0.2 (0.079±0.008)	1.2±0.2 (0.047±0.008)	0.9±0.2 (0.035±0.008)	0.5±0.3 (0.020±0.012)	2.6 (0.102)	1.0 (0.039)	1.0 (0.039)
201212	2.0±0.2 (0.079±0.008)	1.2±0.2 (0.047±0.008)	1.2±0.2 (0.047±0.008)	0.5±0.3 (0.020±0.012)	2.6 (0.102)	1.0 (0.039)	1.0 (0.039)
321611	3.2±0.2 (0.126±0.008)	1.6±0.2 (0.063±0.008)	1.1±0.2 (0.043±0.008)	0.5±0.3 (0.020±0.012)	4.4 (0.173)	1.4 (0.055)	2.2 (0.087)

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### ELECTRICAL CHARACTERISTICS

#### 1608 TYPE

Part Number	Inductance ( $\mu$ H)	Q MIN.	Test Frequency (MHz)	Self-Resonant Frequency (MHz) MIN.	DC Resistance ( $\Omega$ ) MAX.	Rated Current (mA) MAX.
TL160808-47NM	0.047 $\pm$ 20%	10	50	260	0.30	50
TL160808-68NM	0.068 $\pm$ 20%	10	50	250	0.30	50
TL160808-R10K	0.10 $\pm$ 10%	15	25	240	0.50	50
TL160808-R12K	0.12 $\pm$ 10%	15	25	205	0.50	50
TL160808-R15K	0.15 $\pm$ 10%	15	25	180	0.60	50
TL160808-R18K	0.18 $\pm$ 10%	15	25	165	0.60	50
TL160808-R22K	0.22 $\pm$ 10%	15	25	150	0.80	50
TL160808-R27K	0.27 $\pm$ 10%	15	25	136	0.80	50
TL160808-R33K	0.33 $\pm$ 10%	15	25	125	0.85	35
TL160808-R39K	0.39 $\pm$ 10%	15	25	110	1.00	35
TL160808-R47K	0.47 $\pm$ 10%	15	25	105	1.35	35
TL160808-R56K	0.56 $\pm$ 10%	15	25	95	1.55	35
TL160808-R68K	0.68 $\pm$ 10%	15	25	90	1.70	35
TL160808-R82K	0.82 $\pm$ 10%	15	25	85	2.10	35
TL160808-1R0K	1.0 $\pm$ 10%	35	10	75	0.60	25
TL160808-1R2K	1.2 $\pm$ 10%	35	10	65	0.80	25
TL160808-1R5K	1.5 $\pm$ 10%	35	10	60	0.80	25
TL160808-1R8K	1.8 $\pm$ 10%	35	10	55	0.95	25
TL160808-2R2K	2.2 $\pm$ 10%	35	10	50	1.15	15
TL160808-2R7K	2.7 $\pm$ 10%	35	10	45	1.35	15
TL160808-3R3K	3.3 $\pm$ 10%	35	10	40	1.55	15
TL160808-3R9K	3.9 $\pm$ 10%	35	10	35	1.70	15
TL160808-4R7K	4.7 $\pm$ 10%	35	10	33	2.10	15
TL160808-5R6K	5.6 $\pm$ 10%	35	4	22	1.55	5
TL160808-6R8K	6.8 $\pm$ 10%	35	4	20	1.70	5
TL160808-8R2K	8.2 $\pm$ 10%	35	4	18	2.10	5
TL160808-100K	10 $\pm$ 10%	30	2	17	1.85	3
TL160808-120K	12 $\pm$ 10%	30	2	15	2.10	3

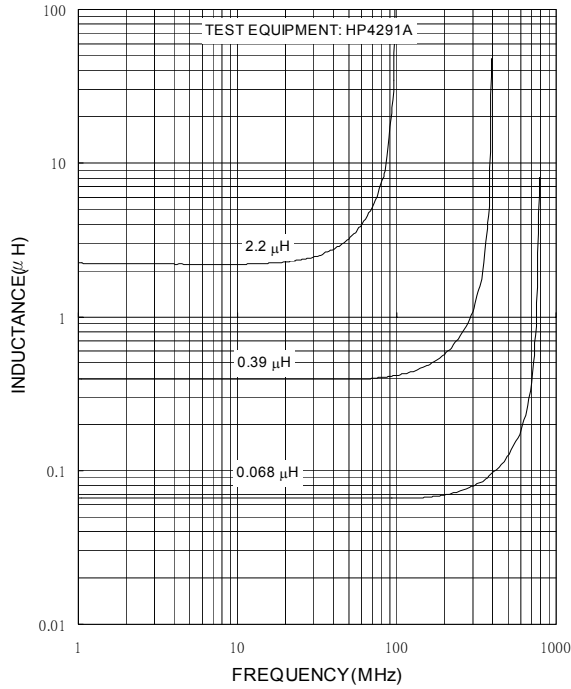
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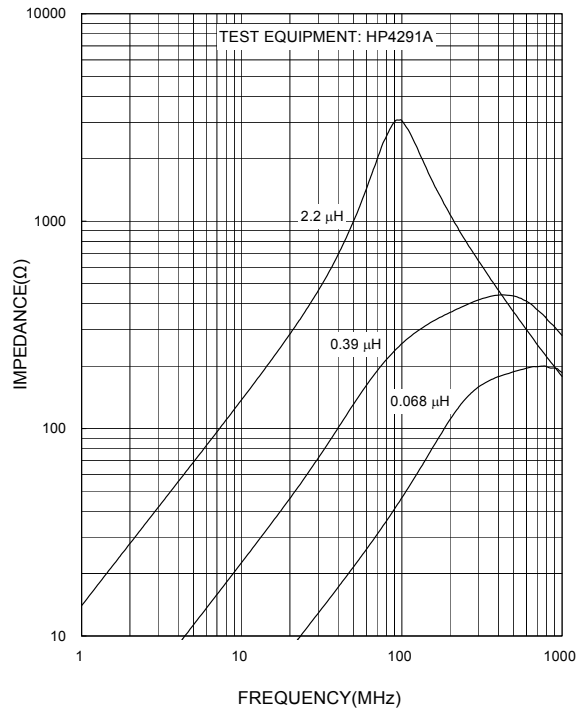


### 1608 TYPE

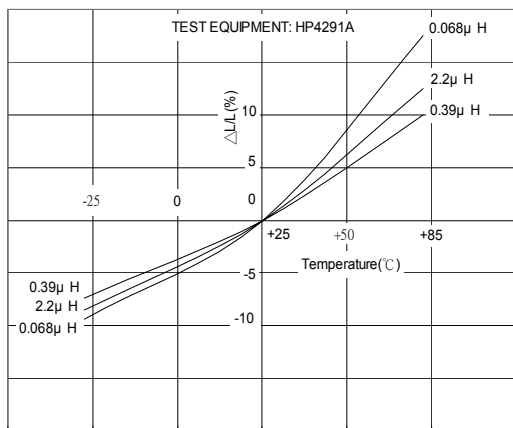
INDUCTANCE vs. FREQUENCY  
CHARACTERISTICS



IMPEDANCE vs. FREQUENCY  
CHARACTERISTICS



INDUCTANCE vs. TEMPERATURE  
CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS

