Multilayer Chip Inductors
TF Series (High Frequency)

Features

- ✱ Monolithic structure for highly reliable surface mount applications.
- ✱ Excellent solderability and high heat resistance for either flow or reflow soldering.
- ✱ Superior Q characteristics guaranteed over the wide frequency allow high frequency application.
- ✱ Dimensions are suitable for automatic mounting.

Applications

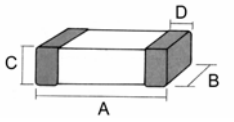
- ✱ RF module of telecommunication products, personal handy-phone systems, pagers, cellular phones, computer communications, etc..

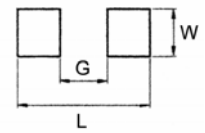
Product Identifications

MTF	□□□□□□	□□□	□
(1)	(2)	(3)	(4)

(1) Product Symbol: MTW's Wound Chip Inductors
(2) Dimensions: Length (A) × Width (B) × Thickness (C)
(3) Inductance
(4) Tolerance

Shapes and Dimensions / Recommended PC Board Pattern





Dimensions in mm (inch)

TYPE	A	B	C	D	L	W	G
100505	1.0±0.1 (0.040±0.004)	0.5±0.1 (0.020±0.004)	0.5±0.1 (0.020±0.004)	0.25±0.15 (0.01±0.006)	2.20 (0.086)	0.70 (0.028)	0.40 (0.016)
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)	2.80 (0.110)	1.00 (0.039)	0.60 (0.024)
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)	3.20 (0.126)	1.50 (0.059)	1.60 (0.024)

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Electrical Characteristics — 100505 Type

Part Number	Inductance (nH)	Percent Tolerance	Test Freq. (MHz)	Q MIN.	SRF (MHz) MIN.	DC Resistance (Ω) MAX.	Rated Current (mA) MAX.
MTF 100505-1N0 ☐	1.0	S	100	8	>15000	0.12	300
MTF 100505-1N2 ☐	1.2	S	100	8	>15000	0.12	300
MTF 100505-1N5 ☐	1.5	S	100	8	>15000	0.13	300
MTF 100505-1N8 ☐	1.8	S	100	8	14000	0.14	300
MTF 100505-2N2 ☐	2.2	S	100	8	12000	0.16	300
MTF 100505-2N7 ☐	2.7	S	100	8	9500	0.17	300
MTF 100505-3N3 ☐	3.3	S	100	8	8500	0.19	300
MTF 100505-3N9 ☐	3.9	S	100	8	7000	0.22	300
MTF 100505-4N7 ☐	4.7	S	100	8	6000	0.24	300
MTF 100505-5N6 ☐	5.6	S	100	8	5400	0.27	300
MTF 100505-6N8 ☐	6.8	J, K	100	8	5000	0.32	250
MTF 100505-8N2 ☐	8.2	J, K	100	8	4600	0.40	250
MTF 100505-10N ☐	10.0	J, K	100	8	3700	0.45	250
MTF 100505-12N ☐	12.0	J, K	100	8	3200	0.50	250
MTF 100505-15N ☐	15.0	J, K	100	8	3100	0.60	250
MTF 100505-18N ☐	18.0	J,K	100	8	2900	0.65	200
MTF 100505-22N ☐	22.0	J,K	100	8	2100	0.80	200
MTF 100505-27N ☐	27.0	J,K	100	8	1900	0.90	200
MTF 100505-33N ☐	33.0	J,K	100	8	1600	1.00	200
MTF 100505-39N ☐	39.0	J, K	100	8	1400	1.20	150
MTF 100505-47N ☐	47.0	J, K	100	8	1200	1.30	150
MTF 100505-56N ☐	56.0	J,K	100	8	1100	2.00	150
MTF 100505-68N ☐	68.0	J,K	100	8	1000	2.20	100
MTF 100505-82N ☐	82.0	J,K	100	8	900	2.50	100
MTF 100505-R10 ☐	100.0	J, K	100	8	850	2.50	100
MTF 100505-R12 ☐	120.0	J, K	100	8	750	2.50	100

☐ Tolerance：J = ± 5%, K = ± 10%, S = ± 0.3 nH

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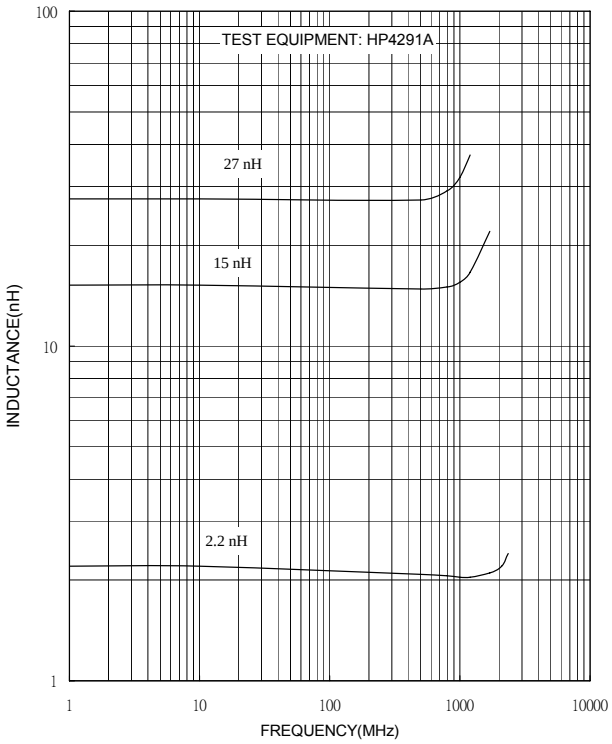
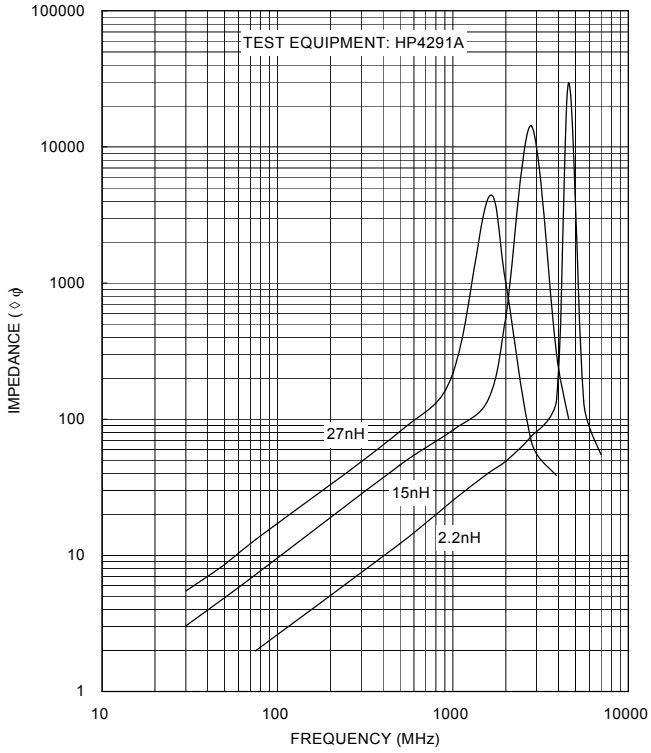
Electrical Charts — 100505 Type

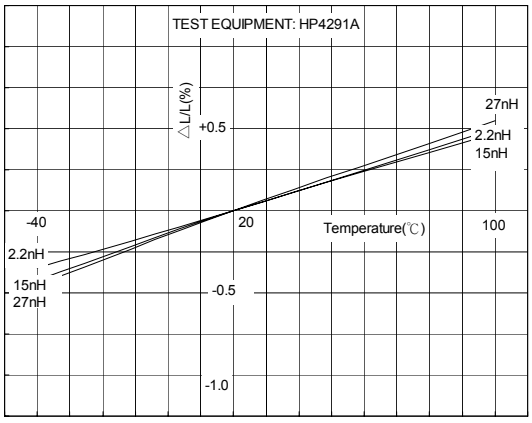
Inductance VS. Frequency



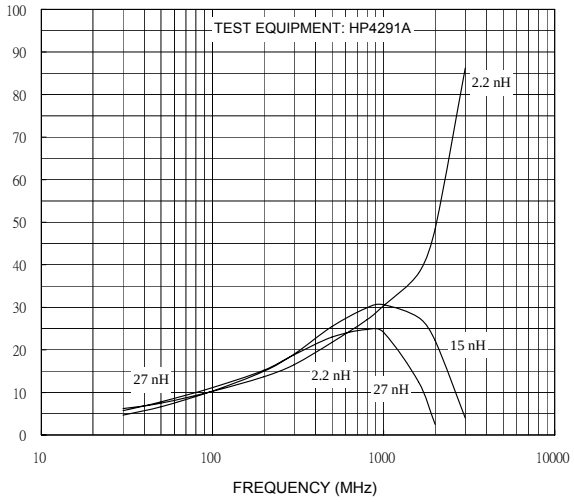
Impedance VS. Frequency



Inductance VS. Temperature



Q VS. Frequency



Multilayer Chip Inductors
TF Series (High Frequency)

Electrical Characteristics — 160808 Type

Part Number	Inductance (nH)	Percent Tolerance	Test Freq. (MHz)	Q MIN.	SRF (MHz) MIN.	DC Resistance (Ω)MAX.	Rated Current (mA)MAX.
MTF 160808-1N0 ☐	1.0	S	100	8	>17000	0.10	300
MTF 160808-1N2 ☐	1.2	S	100	8	>17000	0.10	300
MTF 160808-1N5 ☐	1.5	S	100	8	>17000	0.10	300
MTF 160808-1N8 ☐	1.8	S	100	8	13000	0.15	300
MTF 160808-2N2 ☐	2.2	S	100	8	12000	0.15	300
MTF 160808-2N7 ☐	2.7	S	100	8	8600	0.20	300
MTF 160808-3N3 ☐	3.3	S	100	8	6500	0.25	300
MTF 160808-3N9 ☐	3.9	S	100	8	6300	0.25	300
MTF 160808-4N7 ☐	4.7	S	100	8	5400	0.30	300
MTF 160808-5N6 ☐	5.6	S	100	8	4600	0.30	300
MTF 160808-6N8 ☐	6.8	J, K	100	8	4500	0.35	300
MTF 160808-8N2 ☐	8.2	J, K	100	8	3800	0.40	300
MTF 160808-10N ☐	10.0	J, K	100	8	3700	0.45	300
MTF 160808-12N ☐	12.0	J, K	100	8	3200	0.50	300
MTF 160808-15N ☐	15.0	J, K	100	8	2900	0.55	300
MTF 160808-18N ☐	18.0	J, K	100	10	2100	0.60	300
MTF 160808-22N ☐	22.0	J, K	100	10	2100	0.65	300
MTF 160808-27N ☐	27.0	J, K	100	10	2000	0.70	300
MTF 160808-33N ☐	33.0	J, K	100	10	1600	0.80	300
MTF 160808-39N ☐	39.0	J, K	100	10	1500	0.85	300
MTF 160808-47N ☐	47.0	J, K	100	12	1200	1.00	300
MTF 160808-56N ☐	56.0	J, K	100	12	1100	1.10	300
MTF 160808-68N ☐	68.0	J, K	100	12	1000	1.20	300
MTF 160808-82N ☐	82.0	J, K	100	12	850	1.80	300
MTF 160808-R10 ☐	100.0	J, K	100	12	750	2.00	300
MTF 160808-R12 ☐	120.0	J, K	50	8	700	2.30	300
MTF 160808-R15 ☐	150.0	J, K	50	8	650	2.40	300
MTF 160808-R18 ☐	180.0	J, K	50	8	550	2.70	300
MTF 160808-R22 ☐	220.0	J, K	50	8	450	2.80	300

☐ Tolerance：J = ± 5%, K = ± 10%, S = ± 0.3 nH

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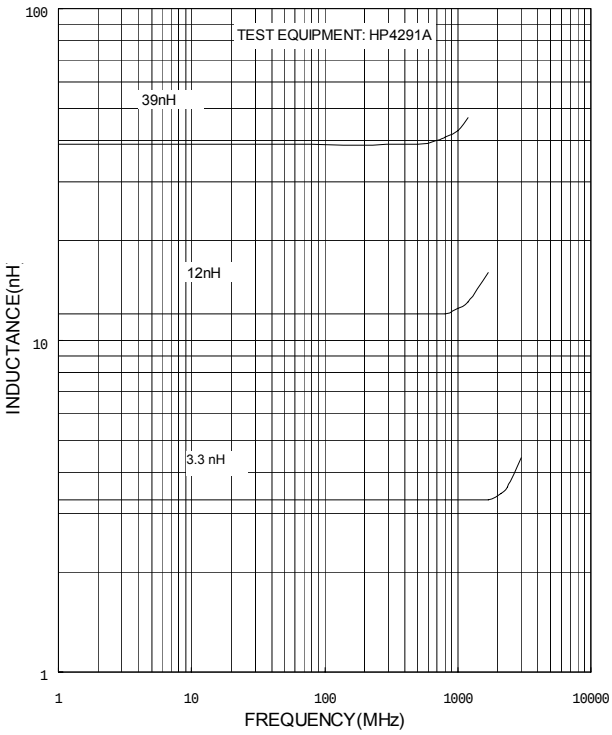
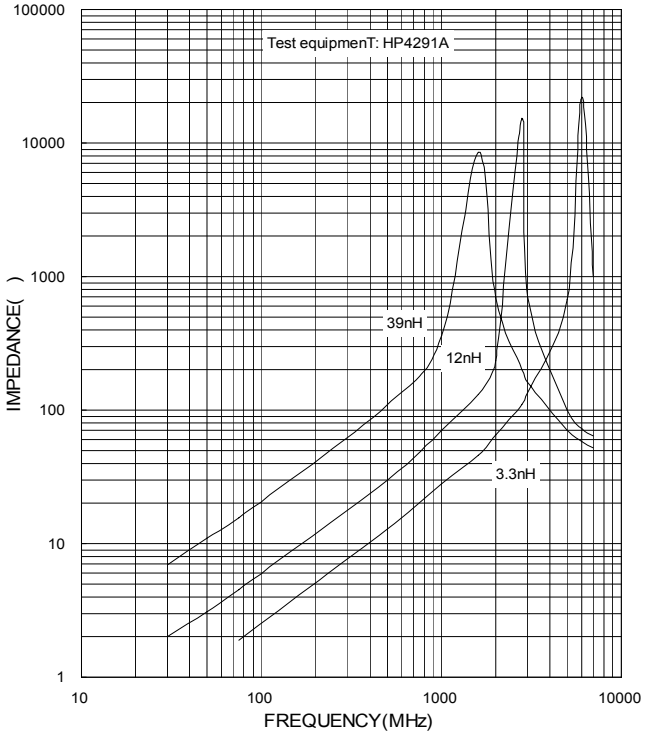
Electrical Charts — 160808 Type

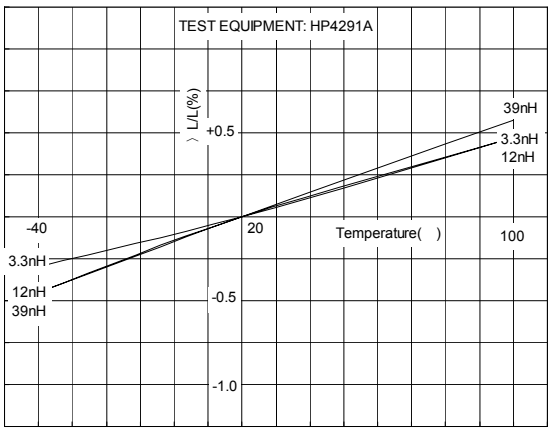
Inductance VS. Frequency



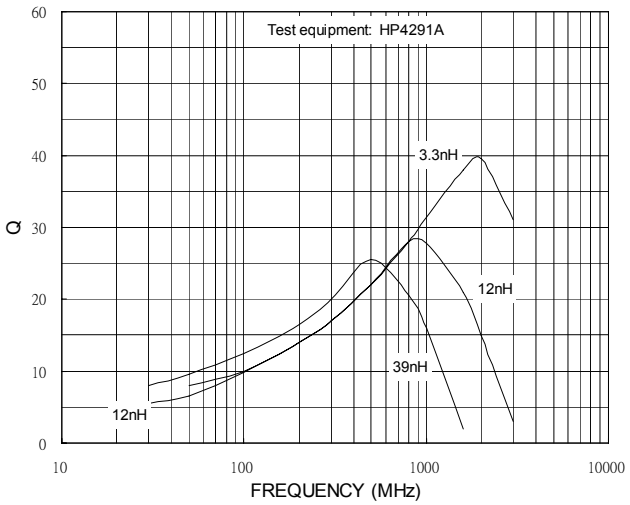
Impedance VS. Frequency



Inductance VS. Temperature



Q VS. Frequency



Multilayer Chip Inductors
TF Series (High Frequency)

Electrical Characteristics — 201209 Type

Part Number	Inductance (nH)	Percent Tolerance	Test Freq. (MHz)	Q MIN.	SRF (MHz) MIN.	DC Resistance (Ω) MAX.	Rated Current (mA)MAX.
MTF 201209-1N2 ☐	1.2	S	100	10	>6000	0.10	300
MTF 201209-1N5 ☐	1.5	S	100	10	>6000	0.10	300
MTF 201209-1N8 ☐	1.8	S	100	10	>6000	0.10	300
MTF 201209-2N2 ☐	2.2	S	100	10	>6000	0.10	300
MTF 201209-2N7 ☐	2.7	S	100	12	>6000	0.12	300
MTF 201209-3N3 ☐	3.3	S	100	12	>6000	0.13	300
MTF 201209-3N9 ☐	3.9	S	100	12	5600	0.15	300
MTF 201209-4N7 ☐	4.7	S	100	12	5500	0.20	300
MTF 201209-5N6 ☐	5.6	S	100	12	4700	0.23	300
MTF 201209-6N8 ☐	6.8	J, K	100	15	3900	0.25	300
MTF 201209-8N2 ☐	8.2	J, K	100	15	3200	0.28	300
MTF 201209-10N ☐	10.0	J, K	100	15	3100	0.30	300
MTF 201209-12N ☐	12.0	J, K	100	15	2800	0.35	300
MTF 201209-15N ☐	15.0	J, K	100	15	2400	0.40	300
MTF 201209-18N ☐	18.0	J, K	100	15	2100	0.45	300
MTF 201209-22N ☐	22.0	J, K	100	15	2000	0.50	300
MTF 201209-27N ☐	27.0	J, K	100	15	1800	0.55	300
MTF 201209-33N ☐	33.0	J, K	100	15	1700	0.60	300
MTF 201209-39N ☐	39.0	J, K	100	18	1400	0.65	300
MTF 201209-47N ☐	47.0	J, K	100	18	1200	0.70	300
MTF 201209-56N ☐	56.0	J, K	100	18	1000	0.75	300
MTF 201209-68N ☐	68.0	J, K	100	18	900	0.80	300
MTF 201209-82N ☐	82.0	J, K	100	18	900	0.85	300
MTF 201209-R10 ☐	100.0	J, K	100	18	700	0.90	300
MTF 201209-R12 ☐	120.0	J, K	50	13	600	0.95	300
MTF 201209-R15 ☐	150.0	J, K	50	13	500	1.00	300
MTF 201209-R18 ☐	180.0	J, K	50	13	430	1.10	300
MTF 201209-R22 ☐	220.0	J, K	50	12	400	1.20	300
MTF 201209-R27 ☐	270.0	J, K	50	12	340	1.30	300
MTF 201209-R33 ☐	330.0	J, K	50	12	320	1.50	300
MTF 201209-R39 ☐	390.0	J, K	50	10	270	1.60	300
MTF 201209-R47 ☐	470.0	J, K	50	10	250	1.80	300
MTF 201209-R56 ☐	560.0	J, K	50	10	230	2.50	300
MTF 201209-R68 ☐	680.0	J, K	50	10	180	3.00	300

☐ Tolerance：J = ± 5%, K = ± 10%, S = ± 0.3 nH

Multilayer Chip Inductors
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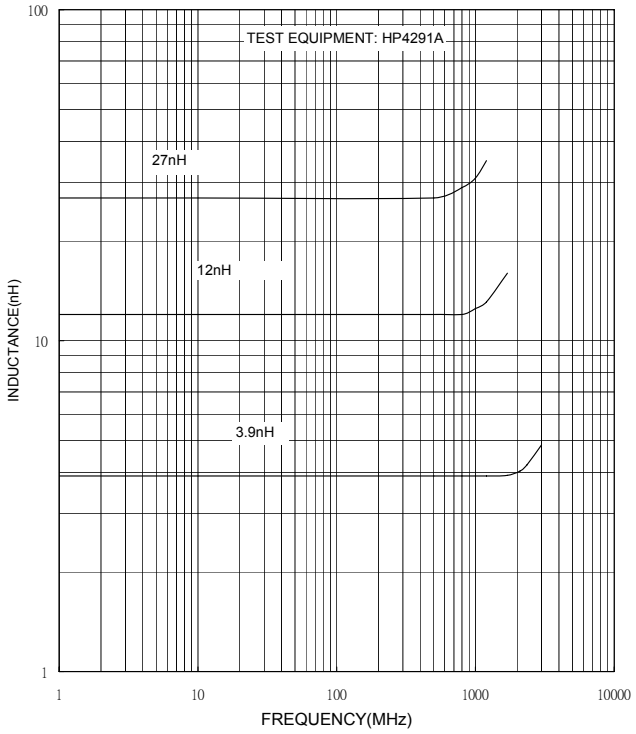
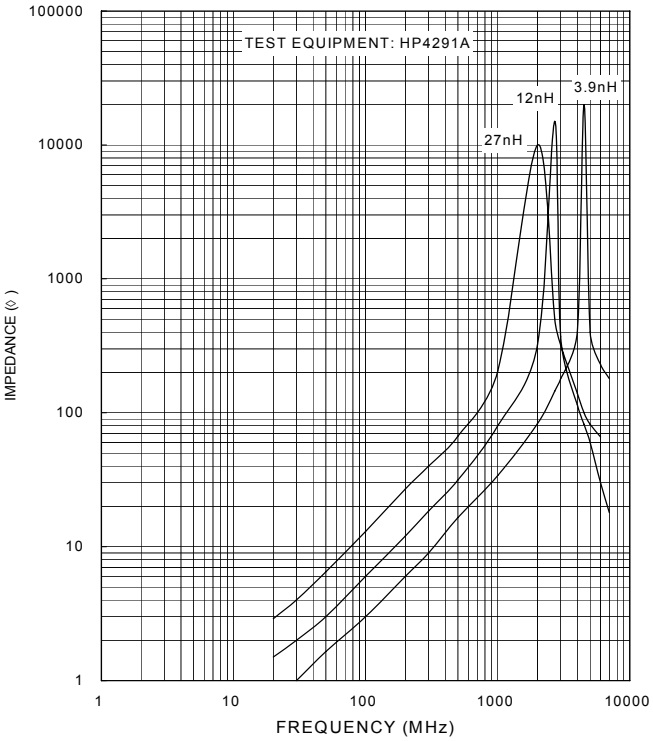
Electrical Charts **201209 Type**

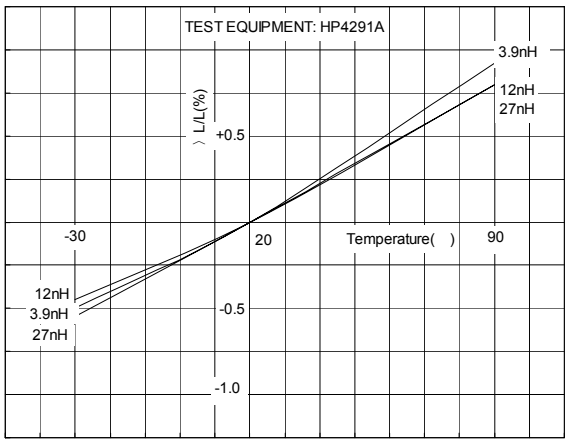
Inductance VS. Frequency



Impedance VS. Frequency



Inductance VS. Temperature



Q VS. Frequency