

# SMD Multilayer Ceramic Chip Inductors – LTI-100505 Series

## Electrical Characteristics

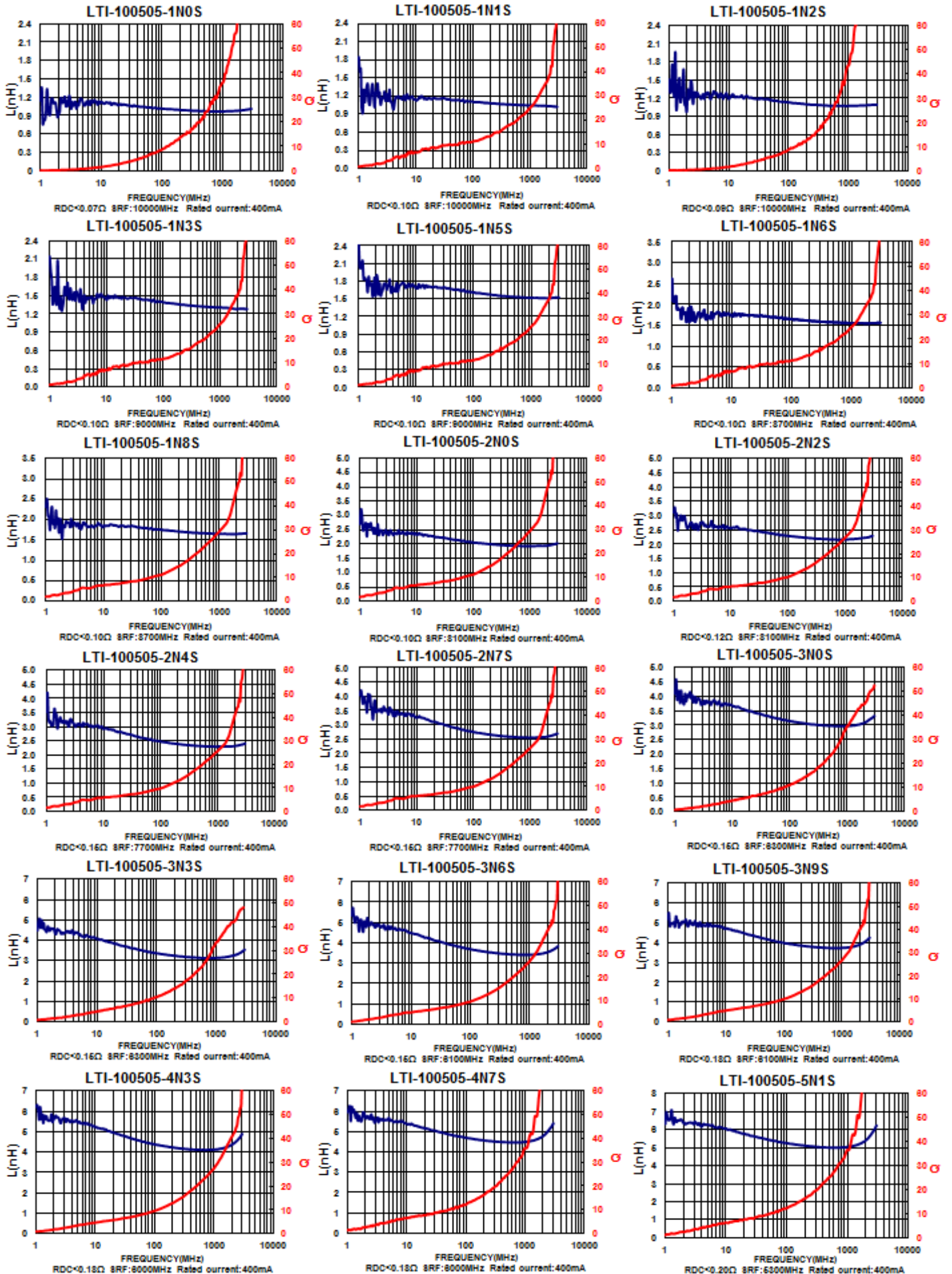
Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Typ.	RDC (Ω) Max	Rated Current (mA) Max
LTI-100505-1N0S	1.0	±0.3nH	100	8	10000	0.07	400
LTI-100505-1N1S	1.1	±0.3nH	100	8	10000	0.10	400
LTI-100505-1N2S	1.2	±0.3nH	100	8	10000	0.09	400
LTI-100505-1N3S	1.3	±0.3nH	100	8	9000	0.10	400
LTI-100505-1N5S	1.5	±0.3nH	100	8	9000	0.10	400
LTI-100505-1N6S	1.6	±0.3nH	100	8	8700	0.10	400
LTI-100505-1N8S	1.8	±0.3nH	100	8	8700	0.10	400
LTI-100505-2N0S	2.0	±0.3nH	100	8	8100	0.10	400
LTI-100505-2N2S	2.2	±0.3nH	100	8	8100	0.12	400
LTI-100505-2N4S	2.4	±0.3nH	100	8	7700	0.15	400
LTI-100505-2N7S	2.7	±0.3nH	100	8	7700	0.15	400
LTI-100505-3N0S	3.0	±0.3nH	100	8	6300	0.15	400
LTI-100505-3N3S	3.3	±0.3nH	100	8	6300	0.15	400
LTI-100505-3N6S	3.6	±0.3nH	100	8	6100	0.15	400
LTI-100505-3N9S	3.9	±0.3nH	100	8	6100	0.18	400
LTI-100505-4N3S	4.3	±0.3nH	100	8	6000	0.18	400
LTI-100505-4N7S	4.7	±0.3nH	100	8	6000	0.18	400
LTI-100505-5N1S	5.1	±0.3nH	100	8	5300	0.20	400
LTI-100505-5N6S	5.6	±0.3nH	100	8	5100	0.20	400
LTI-100505-6N2□	6.2	±0.3nH/5/10	100	8	4500	0.22	400
LTI-100505-6N8□	6.8	5 / 10	100	8	4550	0.24	400
LTI-100505-7N5□	7.5	5 / 10	100	8	4200	0.24	300
LTI-100505-8N2□	8.2	5 / 10	100	8	4100	0.24	300
LTI-100505-9N1□	9.1	5 / 10	100	8	3900	0.26	300
LTI-100505-10N□	10	5 / 10	100	8	3900	0.26	300
LTI-100505-12N□	12	5 / 10	100	8	3000	0.28	300
LTI-100505-15N□	15	5 / 10	100	8	2500	0.32	300
LTI-100505-18N□	18	5 / 10	100	8	2200	0.36	300
LTI-100505-22N□	22	5 / 10	100	8	1900	0.42	300
LTI-100505-27N□	27	5 / 10	100	8	1700	0.46	300
LTI-100505-33N□	33	5 / 10	100	8	1600	0.58	200
LTI-100505-39N□	39	5 / 10	100	8	1200	0.65	200
LTI-100505-47N□	47	5 / 10	100	8	1000	0.72	200
LTI-100505-56N□	56	5 / 10	100	8	800	0.82	200
LTI-100505-68N□	68	5 / 10	100	8	800	0.92	180
LTI-100505-82N□	82	5 / 10	100	8	700	1.20	150
LTI-100505-R10□	100	5 / 10	100	8	900	2.0	100
LTI-100505-R12□	120	5 / 10	100	8	800	2.2	100
LTI-100505-R15□	150	5 / 10	100	8	700	3.5	100
LTI-100505-R18□	180	5 / 10	100	8	600	3.8	100
LTI-100505-R22□	220	5 / 10	100	8	500	4.2	100
LTI-100505-R27□	270	5 / 10	100	8	500	4.8	100

**Note: When ordering, please specify tolerance code. Tolerance : S=±0.3nH , J=±5% , K=±10%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
- Residual impedance of short chip : 0nH
- Measure Equipment :  
L & Q : Agilent E4991A+Agilent 16197A  
SRF : HP8753D  
RDC : HP4338B or CHEN HWA 502

# SMD Multilayer Ceramic Chip Inductors – LTI-100505 Series

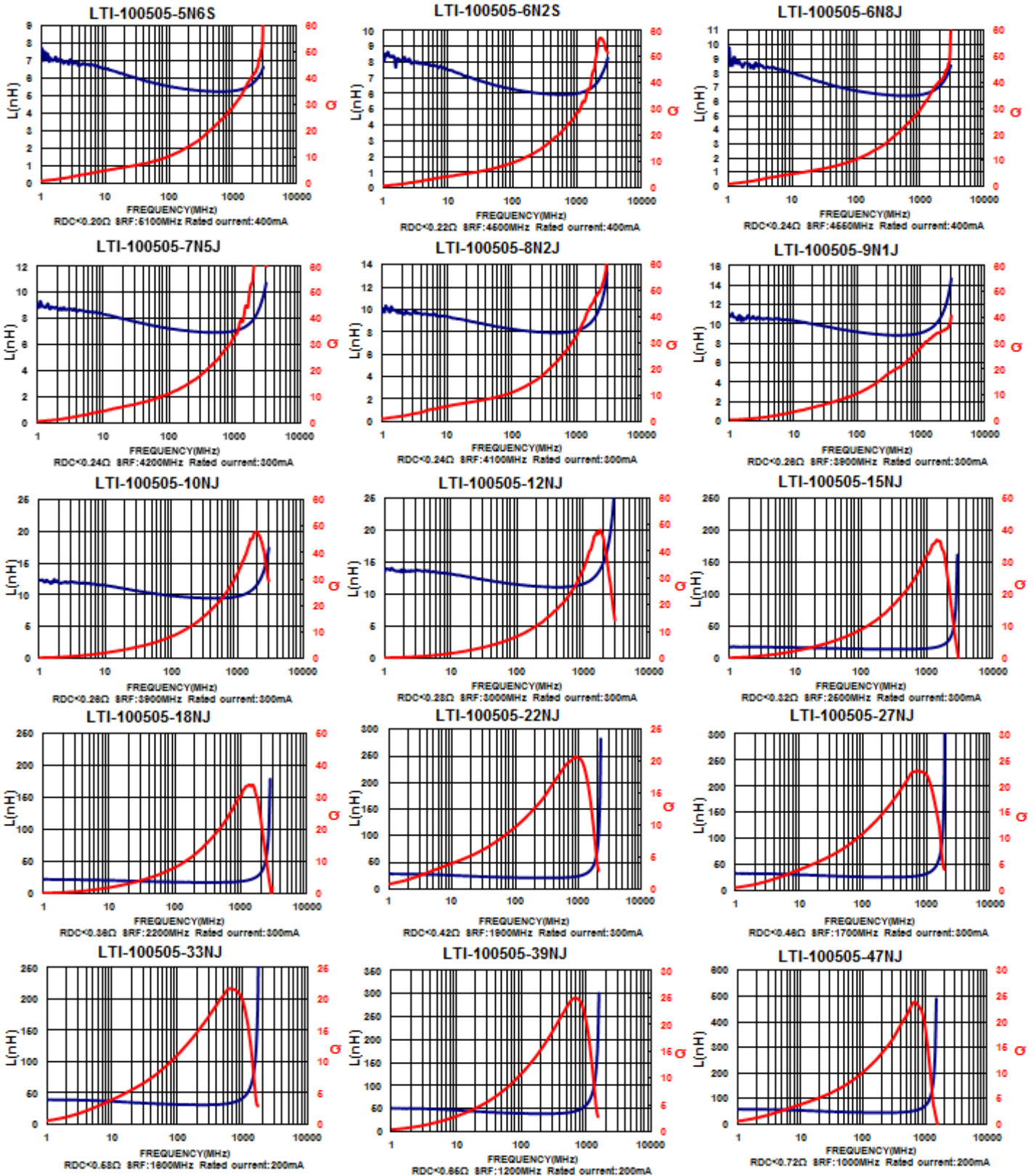
Test Instruments : Agilent E4991A Material/Impedance Analyzer



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Mag.Layers approval. Please contact our sales department before ordering.

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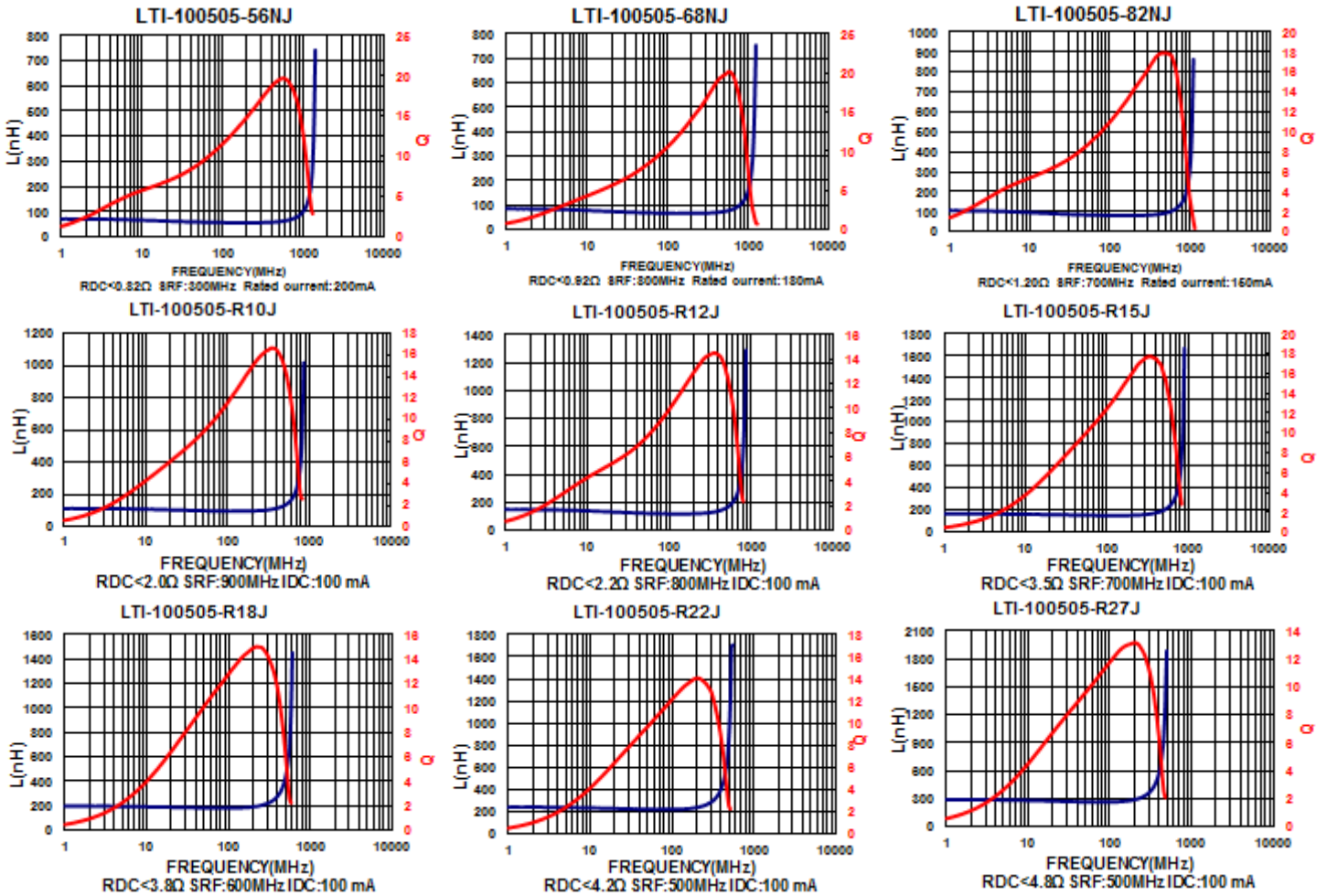
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## LTI Series



The LTI Series is a type of ceramic chip inductor produced using the multilayer technology. The series provides excellent Q factor and SRF characteristics and is suitable for high frequency applications.

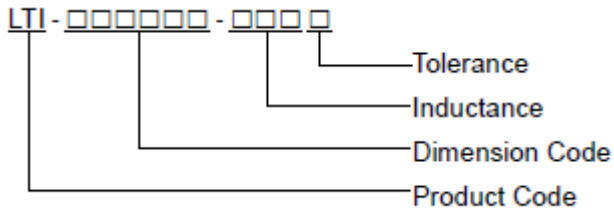
### Features

- RoHS compliant
- Excellent Q factor and SRF characteristics
- Small size of 1005/1608 is suitable for small portable devices
- Supports operating frequency up to 6GHz with nominal inductance values from 1.0nH to 470nH.

### Applications

- RF resonance and impedance matching circuit
- RF and wireless communication
- Information technology equipment, computers, telecommunications, radar detectors, automotive electronics, cellular phones, pagers, PDAs, keyless remote systems
- L-C filter configurations

### Product Identification

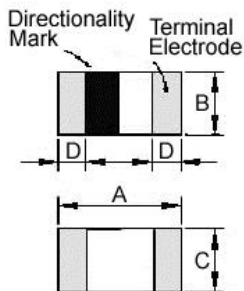


- Product series identification:

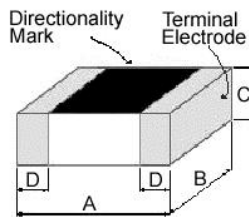
060303	Top side half mark.
100505	Top side full mark.
160808	Top side full mark.

### Shape and Dimensions

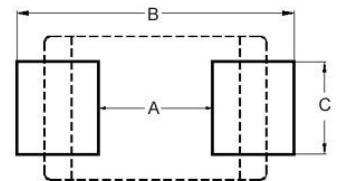
**060303**



**100505 / 160808**



### Recommended Pattern



Dimensions in mm

TYPE	A	B	C	D
060303	0.6 ± 0.03	0.3 ± 0.03	0.3 ± 0.03	0.15 ± 0.05
100505	1.0 ± 0.10	0.5 ± 0.10	0.5 ± 0.10	0.25 ± 0.10
160808	1.6 ± 0.15	0.8 ± 0.15	0.8 ± 0.15	0.3 ± 0.2

Dimensions in mm

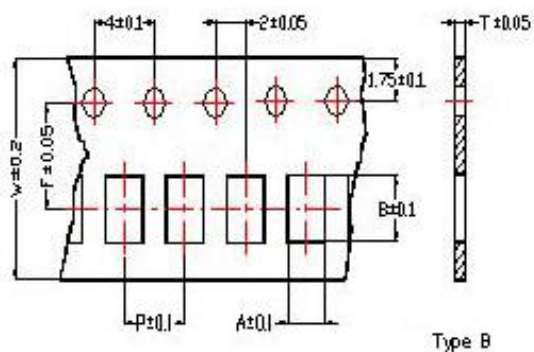
TYPE	A	B	C
060303	0.3	0.75 ~ 1.05	0.3
100505	0.4	1.2 ~ 1.4	0.5
160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8



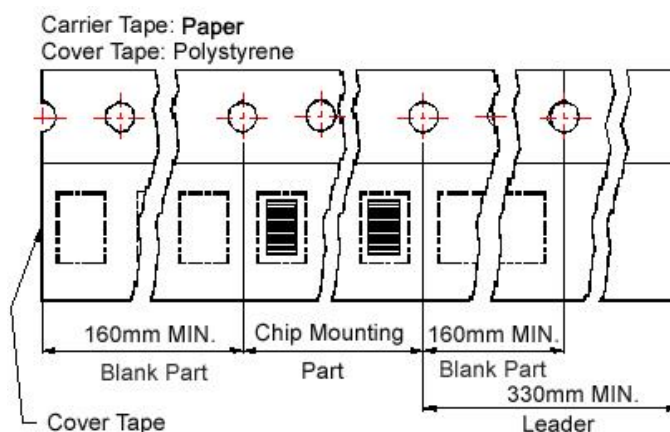
# SMD Ceramic Multilayer Chip Inductors - LTI Series

## Packaging Specifications

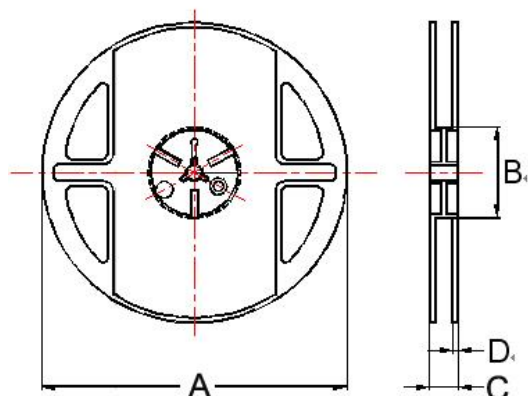
Tape Dimensions



Tape Material



Reel Dimensions



### Dimensions in mm

TYPE	Tape Dimensions						Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	A	B	C	D	
060303	0.37	0.67	0.42	8	2	3.5	180	60	13	1.5	15000
100505	0.62	1.12	0.60	8	2	3.5	178	60	12	1.5	10000
160808	1.00	1.80	0.95	8	4	3.5	178	60	12	1.5	4000