



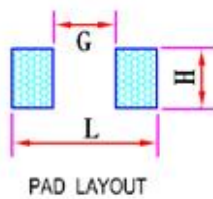
## SMC SERIES

MULTILAYER CERAMIC CHIP INDUCTORS.

### Applications :

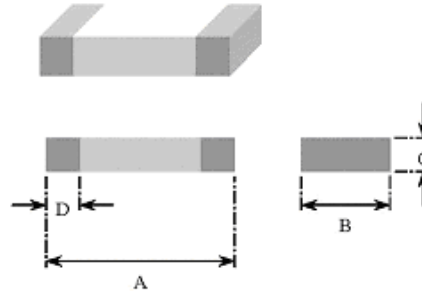
- Cellular Phones.
- Pag.
- High-Speed Communication Dev.

### Recommended Pattern :



TYPE	G	L	H
100505	0.4	1.2 ~ 1.4	0.5
160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6~0.8
201209	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2

### Shape and Dimensions (Dimensions are in mm) :



TYPE	A	B	C	D
100505	1.0±0.10	0.50±0.10	0.50±0.10	0.25±0.10
160808	1.6±0.15	0.80±0.15	0.80±0.15	0.30±0.20
201209	2.0±0.20	1.25±0.20	0.90±0.20	0.50±0.30

### Dimensions Conversion :

Code	Dimension in mm	EIA
100505	1.0X0.5X0.5	0402
160808	1.6X0.8X0.8	0603
201209	2.0X1.2X0.9	0805

### Product Identification :

**SMC- 160808 E - 1N2 S**  
**(1) (2) (3) (4) (5)**

- (1) Product Code
- (2) Dimensions (in mm)
- (3) Design Code
- (4) Inductance
- (5) Tolerance ( S: 0.3nH 、 J:5% 、 K:10% )

### Features :

#### I High Frequency Range

SMC chip inductors have a ceramic material construction that extends the effective frequency range to 6 GHz.

#### I Multiple Size Availability

SMC chip inductors are available in three compact sizes: 100505, 160808 and 201209.

### Test equipments :

**L&Q&SRF** by Agilent 4291A RF Impedance Analyzer with HP16197A Test Fixture.

**DCR** by milli-ohm meter.

**Operating Temperature** : -55°C ~ 125°C .



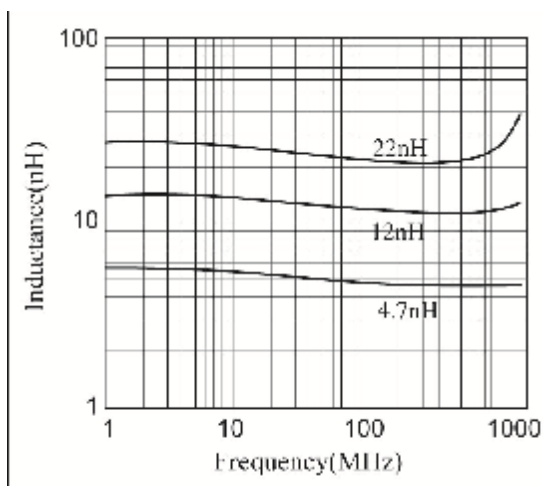
## I SMC (High Frequency Application)

【SMC-100505E type】

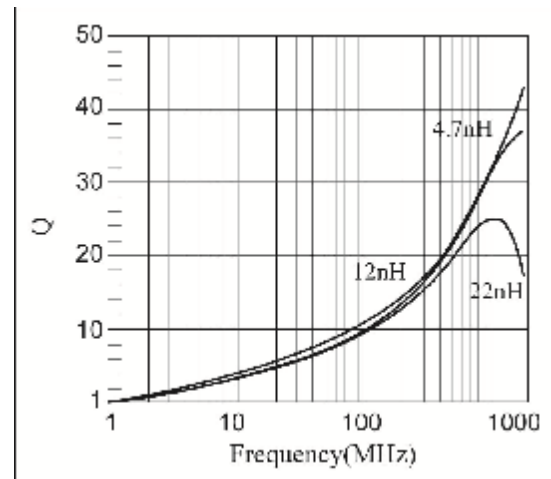
Part No.	Inductance (nH)	Q Min.	Test Freq. (MHz)	S.R.F (MHz) Min.	DCR (Ω) Max.	Rated Current (mA) Max.
SMC-100505E-1N0S	1.0	8	100	10000	0.10	400
SMC-100505E-1N2S	1.2	8	100	10000	0.10	400
SMC-100505E-1N5S	1.5	8	100	9000	0.10	400
SMC-100505E-1N8S	1.8	8	100	8700	0.10	400
SMC-100505E-2N2S	2.2	8	100	8100	0.15	400
SMC-100505E-2N7S	2.7	8	100	7700	0.15	400
SMC-100505E-3N3□	3.3	8	100	6300	0.15	400
SMC-100505E-3N9□	3.9	8	100	6100	0.20	400
SMC-100505E-4N7□	4.7	8	100	5400	0.20	400
SMC-100505E-5N6□	5.6	8	100	5100	0.20	400
SMC-100505E-6N8□	6.8	8	100	4550	0.25	400
SMC-100505E-8N2□	8.2	8	100	4100	0.30	300
SMC-100505E-10N□	10	8	100	3900	0.35	300
SMC-100505E-12N□	12	8	100	3000	0.40	300
SMC-100505E-15N□	15	8	100	2600	0.50	300
SMC-100505E-18N□	18	8	100	2350	0.55	300
SMC-100505E-22N□	22	8	100	2000	0.70	300
SMC-100505E-27N□	27	8	100	1900	0.80	300
SMC-100505E-33N□	33	8	100	1700	1.00	200
SMC-100505E-39N□	39	8	100	1600	1.20	150
SMC-100505E-47N□	47	8	100	1300	1.30	150
SMC-100505E-56N□	56	8	100	1250	2.00	150
SMC-100505E-68N□	68	8	100	1000	2.20	100
SMC-100505E-82N□	82	8	100	900	2.50	100
SMC-100505E-R10□	100	8	100	850	2.50	100

### Typical electrical curves :

Inductance vs. Freq. Characteristics



Q vs. Freq. Characteristics

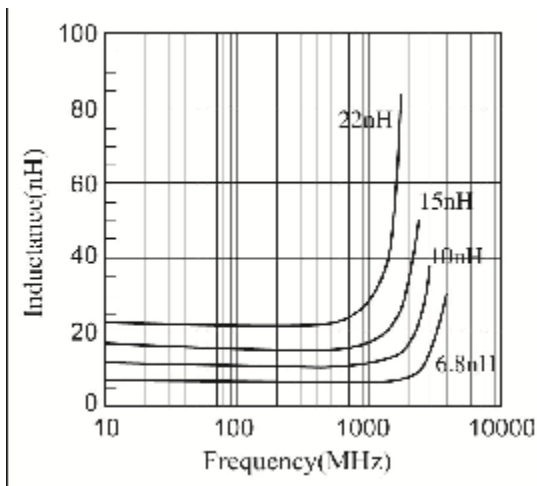



**【SMC-160808E type】**

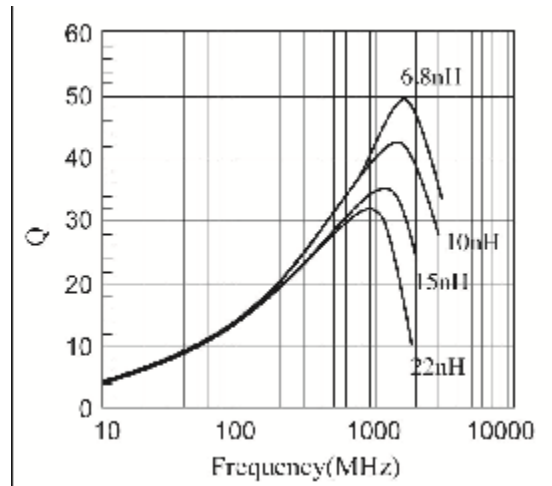
Part No.	Inductance (nH)	Q Min.	Test Freq. (MHz)	S.R.F (MHz) Min.	DCR (Ω) Max.	Rated Current (mA) Max.
SMC-160808E-1N0S	1.0	8	100	10000	0.10	600
SMC-160808E-1N2S	1.2	8	100	10000	0.10	600
SMC-160808E-1N5S	1.5	8	100	8000	0.10	600
SMC-160808E-1N8S	1.8	8	100	8000	0.10	600
SMC-160808E-2N2S	2.2	8	100	7200	0.10	600
SMC-160808E-2N7S	2.7	10	100	6200	0.10	600
SMC-160808E-3N3S	3.3	10	100	5200	0.12	600
SMC-160808E-3N9S	3.9	10	100	5000	0.14	600
SMC-160808E-4N7S	4.7	10	100	4750	0.16	600
SMC-160808E-5N6S	5.6	10	100	4100	0.18	600
SMC-160808E-6N8□	6.8	10	100	3750	0.22	600
SMC-160808E-8N2□	8.2	10	100	3300	0.24	600
SMC-160808E-10N□	10	12	100	3000	0.26	600
SMC-160808E-12N□	12	12	100	2600	0.28	600
SMC-160808E-15N□	15	12	100	2500	0.32	600
SMC-160808E-18N□	18	12	100	2400	0.35	600
SMC-160808E-22N□	22	12	100	2000	0.40	500
SMC-160808E-27N□	27	12	100	1900	0.45	500
SMC-160808E-33N□	33	12	100	1600	0.55	400
SMC-160808E-39N□	39	12	100	1400	0.60	400
SMC-160808E-47N□	47	12	100	1300	0.70	400
SMC-160808E-56N□	56	12	100	1100	0.75	400
SMC-160808E-68N□	68	12	100	1050	0.85	400
SMC-160808E-82N□	82	12	100	900	1.00	300
SMC-160808E-R10□	100	12	100	770	1.20	300

**Typical electrical curves :**

Inductance vs. Freq. Characteristics



Q vs. Freq. Characteristics

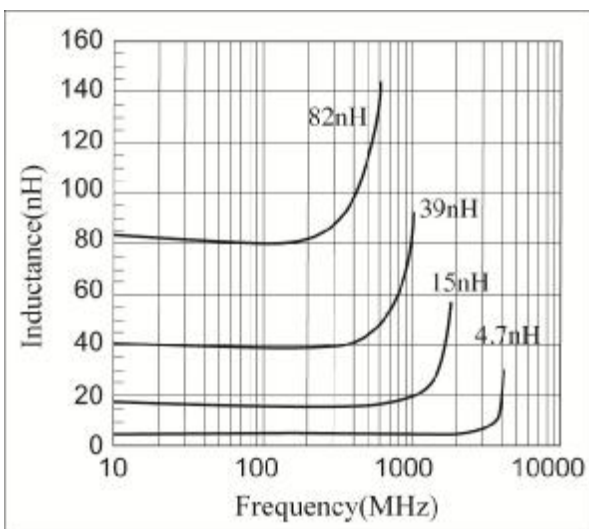



**【SMC-201209E type】**

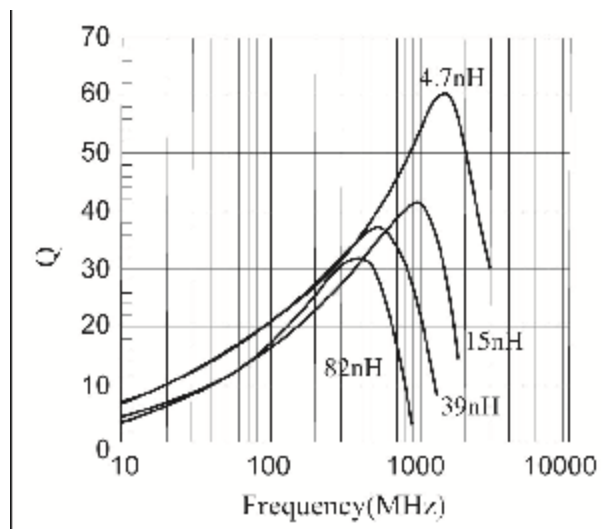
Part No.	Inductance (nH)	Q Min.	Test Freq. (MHz)	S.R.F (MHz) Min.	DCR (Ω) Max.	Rated Current (mA) Max.
SMC-201209E-1N0S	1.0	10	100	>6000	0.10	300
SMC-201209E-1N2S	1.2	10	100	>6000	0.10	300
SMC-201209E-1N5S	1.5	10	100	>6000	0.10	300
SMC-201209E-1N8S	1.8	10	100	>6000	0.10	300
SMC-201209E-2N2S	2.2	10	100	>6000	0.10	300
SMC-201209E-2N7S	2.7	12	100	>6000	0.10	300
SMC-201209E-3N3S	3.3	12	100	>6000	0.13	300
SMC-201209E-3N9S	3.9	12	100	5400	0.15	300
SMC-201209E-4N7S	4.7	12	100	4500	0.20	300
SMC-201209E-5N6S	5.6	12	100	4000	0.23	300
SMC-201209E-6N8□	6.8	15	100	3650	0.23	300
SMC-201209E-8N2□	8.2	15	100	3000	0.28	300
SMC-201209E-10N□	10	15	100	2500	0.30	300
SMC-201209E-12N□	12	15	100	2450	0.35	300
SMC-201209E-15N□	15	15	100	2000	0.40	300
SMC-201209E-18N□	18	15	100	1750	0.45	300
SMC-201209E-22N□	22	15	100	1700	0.50	300
SMC-201209E-27N□	27	15	100	1550	0.55	300
SMC-201209E-33N□	33	15	100	1350	0.60	300
SMC-201209E-39N□	39	18	100	1300	0.65	300
SMC-201209E-47N□	47	18	100	1200	0.70	300
SMC-201209E-56N□	56	18	100	1150	0.75	300
SMC-201209E-68N□	68	18	100	1000	0.80	300
SMC-201209E-82N□	82	18	100	850	0.90	300
SMC-201209E-R10□	100	18	100	730	1.00	300

**Typical electrical curves :**

Inductance vs. Freq. Characteristics



Q vs. Freq. Characteristics



\* Due to the limited space, the catalogue shows the typical specifications only. For more specific details ( characteristics graph, reliability, and others), kindly invite you to access 3L official website [www.3lcoil.com](http://www.3lcoil.com) for better known.