

Features

1. Very high Self-Resonant Frequencies.
2. No polarity.
3. Excellent solder heat resistance for soldering.
4. Lead Free (RoHS Compliance)

Applications

1. Bluetooth module.
2. CDMA, TDMA, GSM, PCS Phone.
3. RF module of telecommunication products.
 - Cellular phone, Cordless telephone etc.
4. PAM (Power Amp Module).
5. Computer communications, Radar detectors.

Ordering Information

SMI	-	I	0603	-	220	J	J	T
(1)		(2)	(3)		(4)	(5)	(6)	(7)

(1) Series

(2) Material

(3) Dimensions

First two digits : length (mm)
 Last two digits : width (mm)

(4) Inductance

First two digits are inductance values.
 Last digit is the number of zeros.
 N : a decimal point placed between first two digits

(5) Tolerance

S : $\pm 0.3nH$
 J : $\pm 5\%$

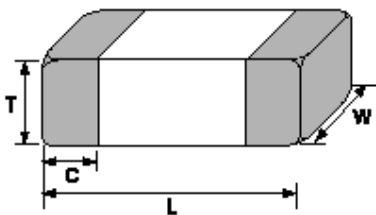
(6) Termination

J : Nickel barrier

(7) Packing

B : Bulk Packing
 T : Tape & Reel (Φ 178mm [7inches])
 L : Tape & Reel (Φ 254mm [10inches])

Shape and Dimensions



unit : mm[inches]

Type	L	W	T	C
SMI-0603-□	0.6 ± 0.03 [.024 \pm .001]	0.3 ± 0.03 [.012 \pm .001]	0.3 ± 0.03 [.012 \pm .001]	0.15 ± 0.05 [.006 \pm .002]

*All specifications are subject to change without notice.

Electrical Parameters

Part No.	Inductance (at 100MHz)		Q (min.) 100MHz	Q (typ.)			SRF(GHz) min.	DCR(mΩ) max.	Rated current (mA) max
	nH	Tolerance		100MHz	800MHz	1000MHz			
SMI-I0603-10NS	1.0	±0.3nH	3	4.0	13.3	15.0	19.0	200	400
SMI-I0603-12NS	1.2		3	4.0	13.3	15.0	19.0	250	400
SMI-I0603-15NS	1.5		3	4.0	13.2	14.8	18.0	300	400
SMI-I0603-18NS	1.8		3	4.1	13.2	14.6	17.0	350	400
SMI-I0603-22NS	2.2		3	4.1	13.0	14.5	15.0	400	400
SMI-I0603-27NS	2.7		3	4.1	13.0	14.5	14.0	450	350
SMI-I0603-33NS	3.3		3	4.2	12.8	14.3	13.0	500	350
SMI-I0603-39NS	3.9		3	4.2	12.8	14.2	12.0	550	350
SMI-I0603-47NS	4.7		3	4.2	12.6	14.2	10.0	600	350
SMI-I0603-56NS	5.6		3.5	4.3	12.5	14.0	10.0	700	350
SMI-I0603-68NJ	6.8	± 5%	3.5	4.3	12.5	14.0	9.0	800	300
SMI-I0603-82NJ	8.2		3.5	4.5	12.7	14.0	8.0	900	300
SMI-I0603-100J	10.0		3.5	4.8	13.0	14.3	8.0	1000	250
SMI-I0603-120J	12		4	4.8	12.0	13.5	7.0	1100	250
SMI-I0603-150J	15		4	4.7	11.5	13.0	6.0	1200	200
SMI-I0603-180J	18		4	4.5	11.0	12.0	5.0	1400	200
SMI-I0603-220J	22		4	4.5	10.2	11.0	5.0	1600	150

Test Equipment & Fixture

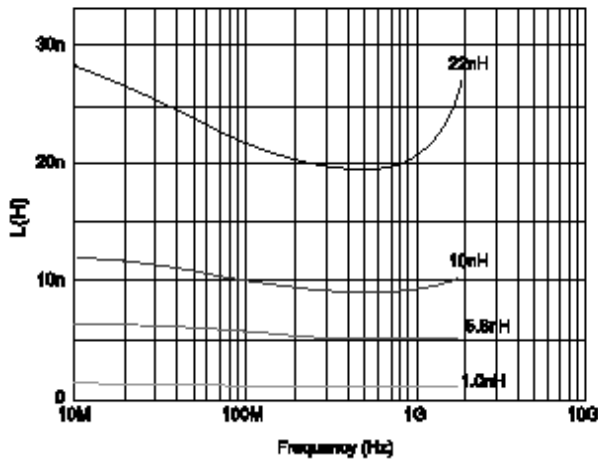
L ,Q: RF impedance Analyzer 4991A(Agilent), Test Fixture 16196C(Agilent)

SRF : Network Analyzer 8722ES (Agilent)

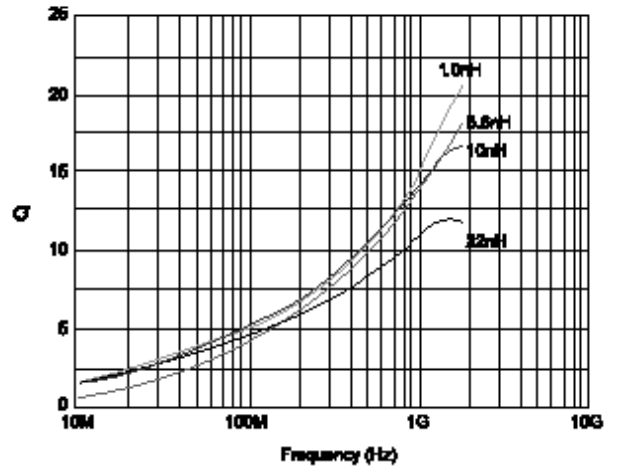
Rdc: TWA-161A,B

Electrical Characteristic Curves

Inductance Characteristics



Q Characteristics



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