

1. Part No. Expression

C0 - 1N0S - E - 10

(a)(b) (c) (d) (e) (f)

(a) Series Code

(b) Dimension Code

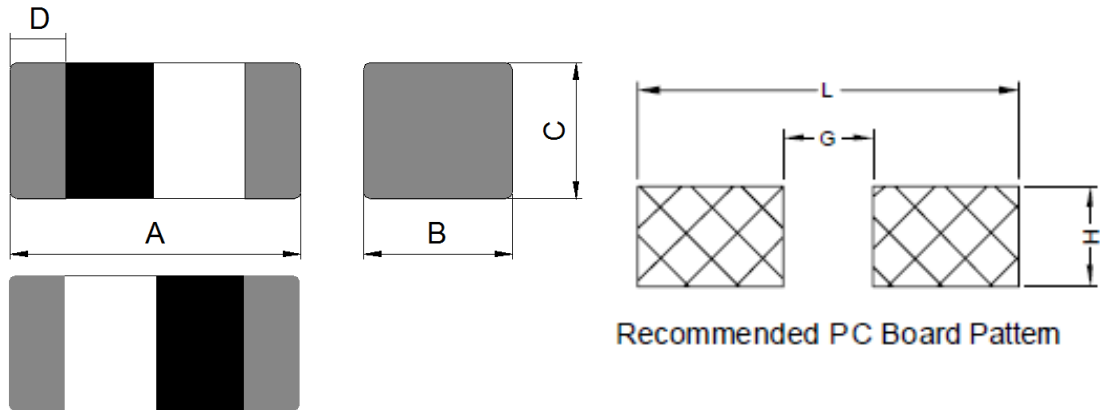
(c) Inductance Code

(d) Tolerance Code

(e) Special Code

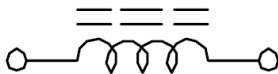
(f) Internal Code

2. Configuration & Dimensions: (Unit:- mm)

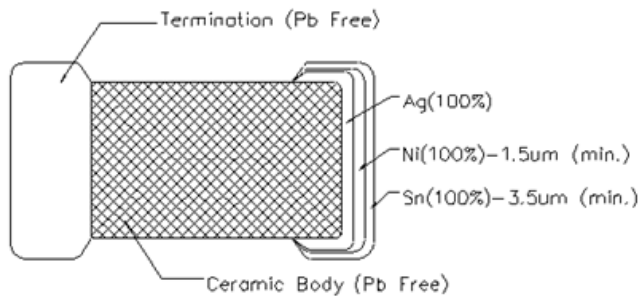


A	B	C	D	G	H	L
0.60±0.03	0.30±0.03	0.30±0.03	0.15±0.05	0.20~0.30	0.25~0.40	0.80

3. Schematic



4. Material List



NOTE: Specifications subject to change without notice. Please check our website for latest information.

5. General Specifications

- (a) Operating Temp. : -55°C to +125°C (including self-temperature rise).
- (b) Storage Temp. : -40°C to +85°C (on board).
- (c) The maximum rated current: the DC current value having temperature increased 40°C after through DC current 2 hours at ambient temperature.
- (d) Storage Condition (Component in its packaging)
 - i) Temperature: Less than 40°C
 - ii) Humidity: 60% RH

6. Electrical Characteristics

Part Number	Inductance	Q	SRF	SRF	DCR	Rated Current
	(nH) @250mV/100MHz	Factor Min	(MHz) Min	(MHz) Typ	(Ω) Max	(mA) Max
C0-1N0S-E-10	1.0	4	10000	>13000	0.11	470
C0-1N2S-E-10	1.2	4	10000	>13000	0.12	450
C0-1N5S-E-10	1.5	4	10000	>13000	0.13	430
C0-1N8S-E-10	1.8	4	10000	>13000	0.16	390
C0-2N0S-E-10	2.0	4	8800	>13000	0.17	380
C0-2N1S-E-10	2.1	4	8800	>13000	0.17	380
C0-2N2S-E-10	2.2	4	8800	12500	0.19	360
C0-2N4S-E-10	2.4	4	8300	11700	0.2	350
C0-2N7S-E-10	2.7	4	7700	11000	0.21	340
C0-3N0S-E-10	3.0	4	7200	11000	0.22	330
C0-3N3S-E-10	3.3	4	6700	9600	0.23	320
C0-3N6S-E-10	3.6	4	6400	9100	0.25	310
C0-3N9S-E-10	3.9	4	6000	8600	0.27	300
C0-4N3S-E-10	4.3	4	5700	8100	0.3	280
C0-4N7S-E-10	4.7	4	5300	7600	0.3	280

Tolerance Code: S=±0.3nH, J=±5%

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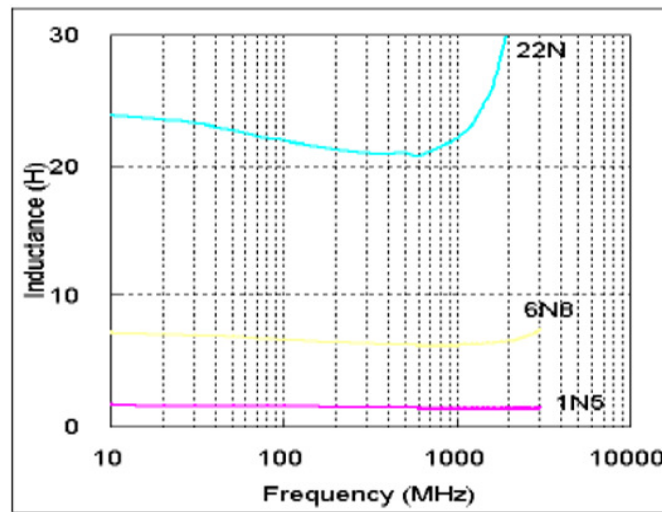


Part Number	Inductance (nH) @250mV/100MHz	Q Factor Min	SRF (MHz) Min	SRF (MHz) Typ	DCR (Ω) Max	Rated Current (mA) Max
C0-5N1S-E-10	5.1	4	5000	7100	0.33	270
C0-5N6S-E-10	5.6	4	4600	6600	0.36	260
C0-6N2S-E-10	6.2	4	4200	6100	0.38	250
C0-6N8J-E-10	6.8	4	3900	5600	0.39	250
C0-7N5J-E-10	7.5	4	3600	5300	0.41	240
C0-8N2J-E-10	8.2	4	3400	4900	0.45	230
C0-9N1J-E-10	9.1	4	3200	4600	0.48	220
C0-10NJ-E-10	10	4	2900	4200	0.51	220
C0-12NJ-E-10	12	4	2700	3800	0.68	190
C0-15NJ-E-10	15	4	2300	3100	0.71	180
C0-18NJ-E-10	18	4	2100	3000	0.81	170
C0-22NJ-E-10	22	4	1800	2600	1.0	150
C0-27NJ-E-10	27	4	1800	2600	1.35	120

Tolerance Code: S=±0.3nH, J=±5%

7. Characteristics Curves

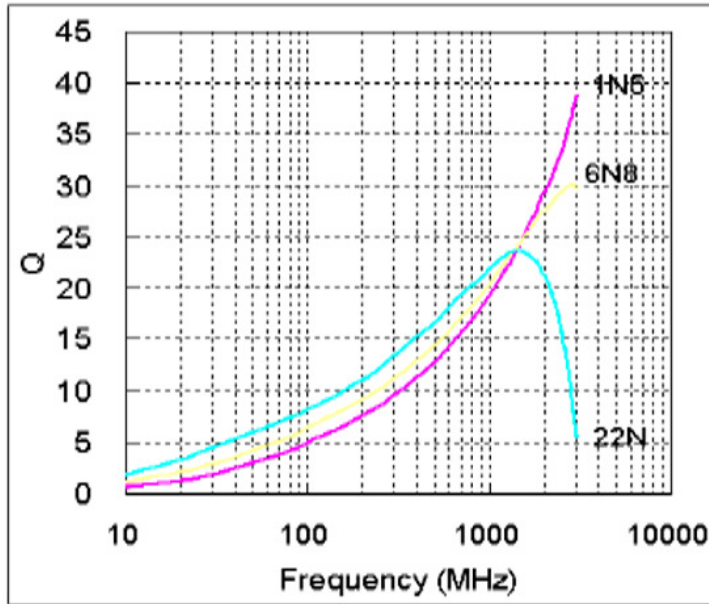
Inductance vs Frequency



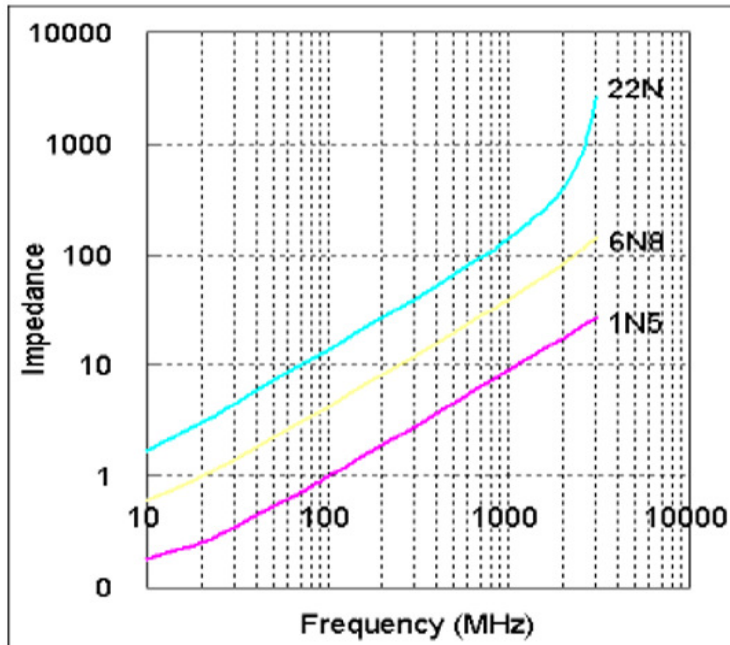
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Q vs Frequency



Impedance vs Frequency



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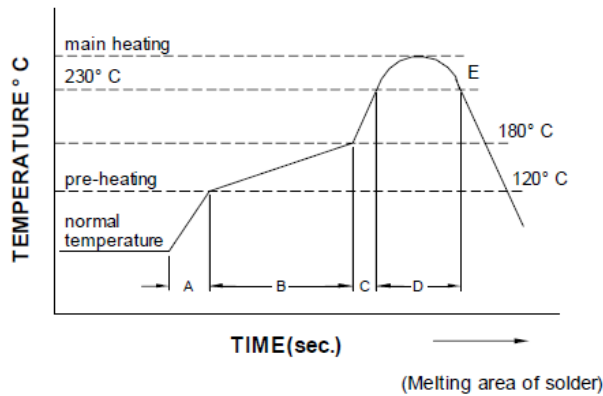


8. Soldering and Mounting

Mildly activated rosin fluxes are preferred. The terminations are suitable for re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

8-1 Solder Re-flow:

Recommended temperature profiles for lead free re-flow soldering as following diagram.



A	Slope of temp. rise	1 to 5	° C/sec
B	Heat time	50 to 150	sec
	Heat temperature	120 to 180	° C
C	Slope of temp. rise	1 to 5	° C/sec
D	Time over 230° C	90~120	sec
E	Peak temperature	255~260	° C
	Peak hold time	10 max.	sec
No. of mounting		3	times

8-2 Soldering Iron:

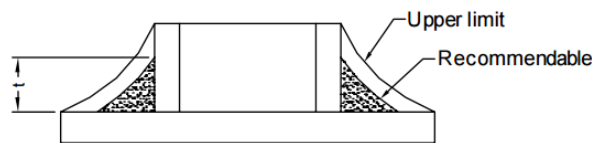
Products attachment with soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended. Reworking should be limited to only one time.

Note:

- Preheat circuit and products to 150°C for 1 minute.
- 280°C tip temperature (Max).
- Never contact the ceramic with the iron tip.
- Control the end of soldering iron in 3mm (Max).
- Use a 30 Watt soldering iron.
- Limit soldering time to 3 secs.

8-3 Soldering Volume:

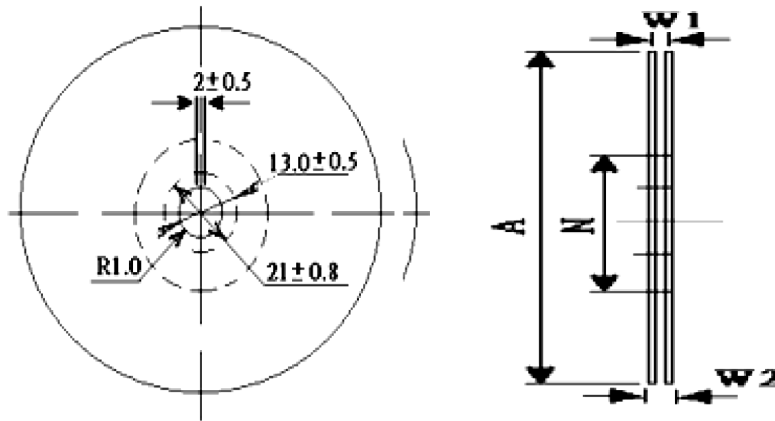
Accordingly increasing the solder volume, the mechanical stress to product is also increased. Exceeding solder volume may cause the failure of mechanical or electrical performance. Solder shall be used not to be exceeding as following diagram. Minimum fillet height = soldering thickness + 25% product height.



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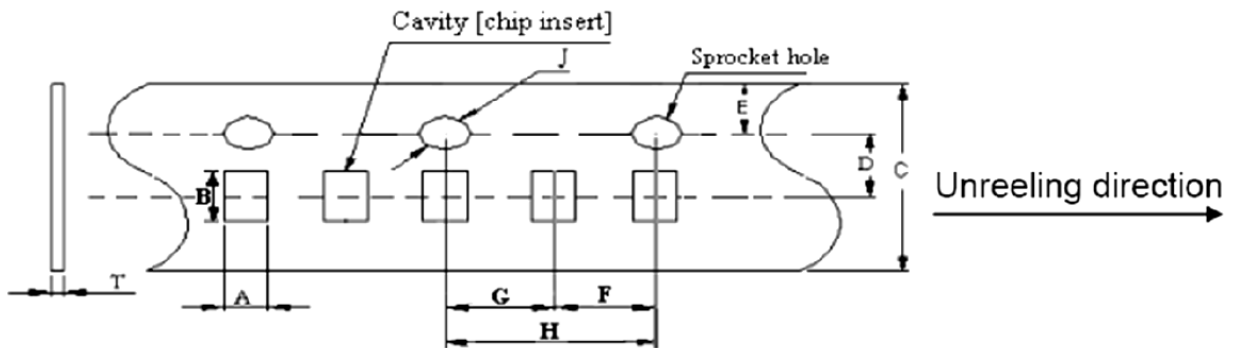
9. Packaging Information

9-1 Reel Dimension



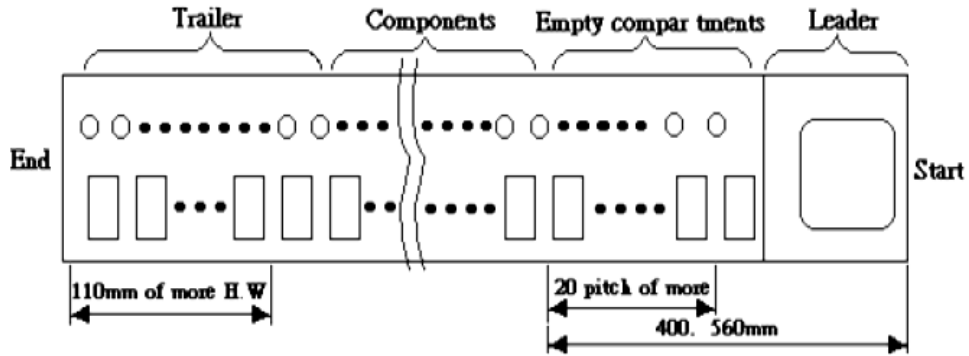
A(mm)	N(mm)	W1(mm)	W2(mm)
178 ± 2	50 Min.	10 ± 1.5	20 Max.

9-2 Tape Dimension



Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
	0.38 ± 0.04	0.68 ± 0.04	8.00 ± 0.20	3.50 ± 0.05	1.75 ± 0.05
C0	F(mm)	G(mm)	H(mm)	J(mm)	T(mm)
	2.00 ± 0.05	2.00 ± 0.05	4.00 ± 0.10	$1.50 + 0.1/-0$	1.10 Max

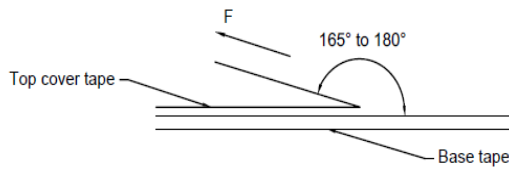
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9-3 Packaging Quantity

Chip Size	C0
Chip/Reel	15,000

9-4 Tearing Off Force



The force for tearing off cover tape is 10 to 100 grams in the arrow direction under the following conditions.

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice:

1. Storage Conditions:

To maintain the solderability of terminal electrodes:

- a) Recommended products should be used within 12 months from the time of delivery.
- b) The packaging material should be kept where no chlorine or sulfur exists in the air.

2. Transportation:

- a) Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- b) Vacuum pick up is strongly recommended for individual components.
- c) Bulk handling should ensure that abrasion and mechanical shock are minimized.

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