

1. Part No. Expression

**C3 - 1 N 0 S - □□**

(a) (b) (c) (d)

(a) Series Code

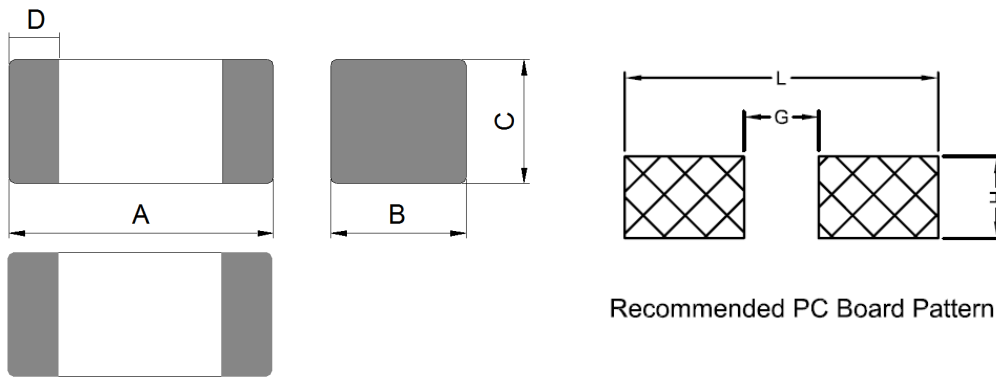
(b) Inductance Code

(c) Tolerance Code

(d) 10: Standard Code

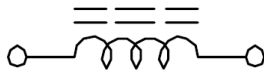
11-99: Internal Controlled Code

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

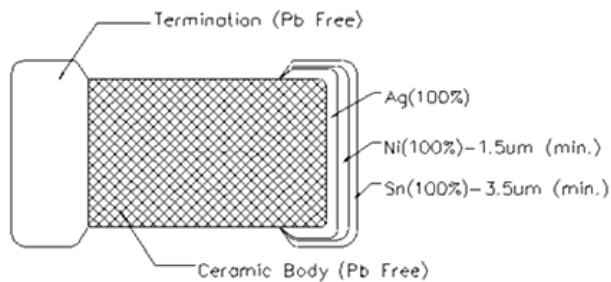


A	B	C	D	L	G	H
2.00±0.2	1.25±0.2	0.85±0.2	0.50±0.3	2.30 Ref.	1.30 Ref.	1.30 Ref.

3. Schematic



4. Material List



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



**5. General Specifications**

- a) Operating Temperature: - 55°C to +125°C (including self-temperature rise).
- b) Storage Temperature: - 40°C to +85°C (on board).
- c) Storage Condition (component in its packaging)
  - i) Temperature: Less than 40°C
  - ii) Humidity: 60% RH

**6. Electrical Characteristics**

Part No.	Inductance (nH)			Q		SRF (GHz) Min.	DCR (Ω) Max.	Rated Current (mA) Max.
	Inductance Value	Tolerance	Test Frequency (Hz)	Min.	Test Frequency (MHz)			
C3-1N0S-10	1.0	S	250mV/100M	10	100	10	0.10	300
C3-1N2S-10	1.2	S	250mV/100M	10	100	10	0.10	300
C3-1N5S-10	1.5	S	250mV/100M	10	100	4.0	0.10	300
C3-1N8S-10	1.8	S	250mV/100M	10	100	4.0	0.10	300
C3-2N2S-10	2.2	S	250mV/100M	10	100	4.0	0.10	300
C3-2N7S-10	2.7	S	250mV/100M	12	100	4.0	0.10	300
C3-3N3S-10	3.3	S	250mV/100M	12	100	4.0	0.13	300
C3-3N9S-10	3.9	S	250mV/100M	12	100	4.0	0.15	300
C3-4N7S-10	4.7	S	250mV/100M	12	100	3.5	0.20	300
C3-5N6S-10	5.6	S	250mV/100M	15	100	3.2	0.23	300
C3-6N8J-10	6.8	J	250mV/100M	15	100	2.8	0.25	300
C3-8N2J-10	8.2	J	250mV/100M	15	100	2.4	0.28	300
C3-10NJ-10	10.0	J	250mV/100M	15	100	2.1	0.30	300
C3-12NJ-10	12.0	J	250mV/100M	15	100	1.9	0.35	300
C3-15NJ-10	15.0	J	250mV/100M	15	100	1.6	0.40	300
C3-18NJ-10	18.0	J	250mV/100M	15	100	1.5	0.45	300
C3-22NJ-10	22.0	J	250mV/100M	18	100	1.4	0.50	300
C3-27NJ-10	27.0	J	250mV/100M	18	100	1.3	0.55	300
C3-33NJ-10	33.0	J	250mV/100M	18	100	1.2	0.60	300
C3-39NJ-10	39.0	J	250mV/100M	18	100	1.0	0.65	300
C3-47NJ-10	47.0	J	250mV/100M	18	100	0.9	0.70	300

Tolerance: S = ± 0.3nH, J = ± 5%

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



Part No.	Inductance (nH)			Q		SRF (GHz) Min.	DCR (Ω) Max.	Rated Current (mA) Max.
	Inductance Value	Tolerance	Test Frequency (Hz)	Min.	Test Frequency (MHz)			
C3-56NJ-10	56.0	J	250mV/100M	18	100	0.8	0.75	300
C3-68NJ-10	68.0	J	250mV/100M	18	100	0.7	0.80	300
C3-82NJ-10	82.0	J	250mV/100M	18	100	0.6	0.90	300
C3-R10J-10	100	J	250mV/100M	18	100	0.6	0.90	300
C3-R12J-10	120	J	250mV/100M	13	50	0.5	0.95	300

Tolerance: S =  $\pm 0.3\text{nH}$ , J =  $\pm 5\%$

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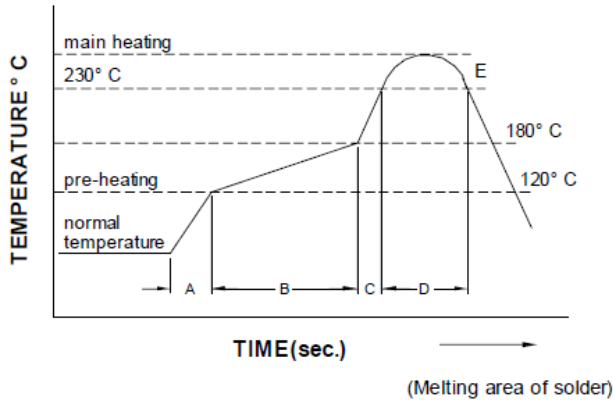


## 7. Soldering and Mounting

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.

### 7-1 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

### 7-2 Soldering Iron:

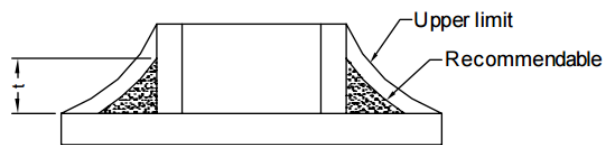
Products attachment with soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended.

Note:

- Preheat circuit and products to 150°C.
- 280°C tip temperature (Max.)
- Never contact the ceramic with the iron tip
- 1.0mm tip diameter (Max.)
- Use a 20 watt soldering iron with tip diameter of 1.0mm
- Limit soldering time to 3 secs.

### 7-3 Soldering Volume:

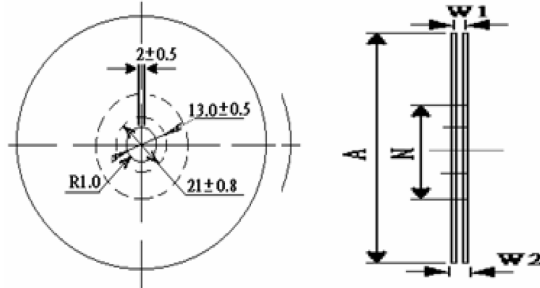
Accordingly increasing the solder volume, the mechanical stress to product is also increased. Exceeding solder volume may cause the failure of mechanical or electrical performance. Solder shall be used not to be exceeding as following diagram. Minimum fillet height = soldering thickness + 25% product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



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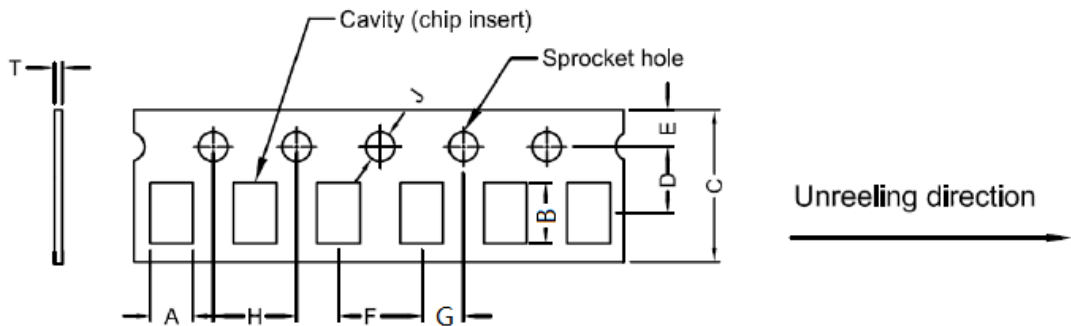
8. Packaging Information

8-1 Reel Dimension



A (mm)	N (mm)	W1 (mm)	W2 (mm)
178±2.0	50 Min.	10±1.5	20 Max.

8-2 Tape Dimension



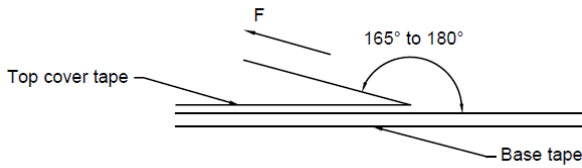
Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	J(mm)	T(mm)
C3	1.45±0.05	2.25±0.05	8.00±0.1	3.50±0.05	1.75±0.1	4.00±0.1	2.00±0.05	4.00±0.1	1.55±0.05	0.95±0.05

8-3. Packaging Quantity

Series	C3
Chip/ Reel	4000

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8-4. 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 (%)	Tearing Speed (mm/min)
5 - 35	30 - 70	300

**Application Notice:**

1. Storage Conditions:

To maintain the solderability of terminal electrodes:

- a) Recommended products should be used within 6 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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