

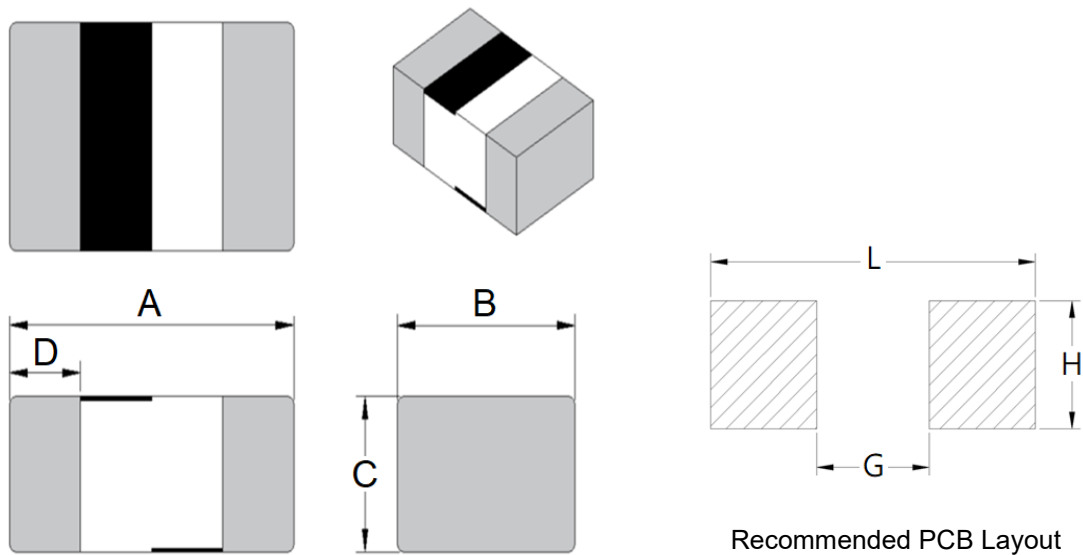
1. Part No. Expression

C 0 - 1N0 S - E - 10

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

- | | |
|---------------------|---------------------|
| (a) Series Code | (d) Tolerance Code |
| (b) Dimension Code | (e) Controlled Code |
| (c) Inductance Code | (f) Internal Code |

2. Configuration & Dimensions (Unit: mm)



A	B	C	D	L	G	H
0.60±0.03	0.30±0.03	0.30±0.03	0.10~0.20	0.69 Ref	0.25 Ref	0.32 Ref

3. 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) All test data referenced to 25°C ambient.
- (d) Storage Condition (Component in its packaging)
 - i) Temperature: Less than 40°C
 - ii) Humidity: Less than 70% RH

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

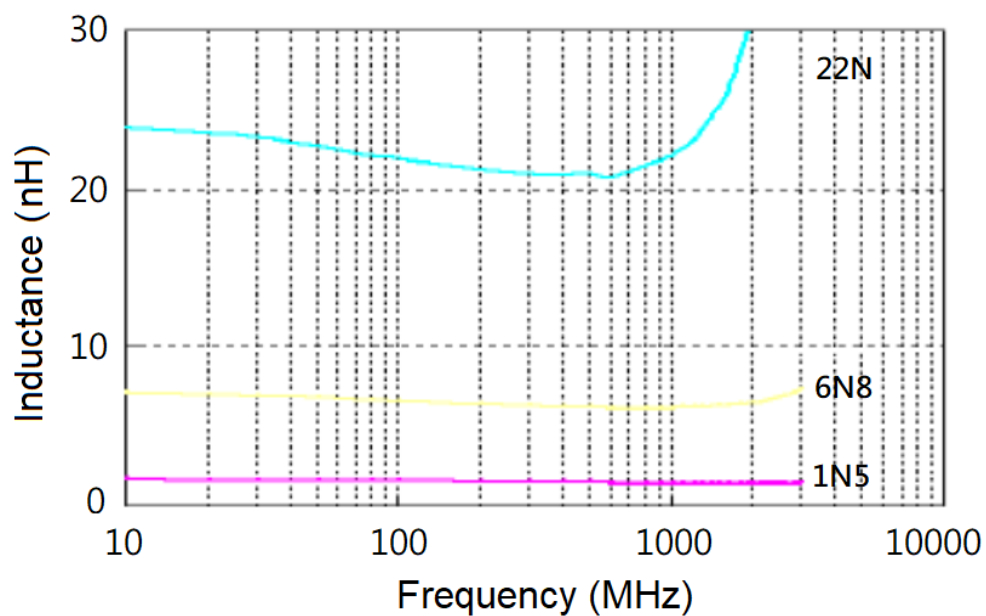
4. Electrical Characteristics

Part Number	Inductance (nH) ±0.3	Test Frequency	Q Min	SRF (MHz)		DCR (Ω) Max	Rated Current (mA) Max
				Min	Typ		
C0-1N0S-E-10	1.0	250mV/100MHz	4	10000	>13000	0.11	470
C0-1N2S-E-10	1.2	250mV/100MHz	4	10000	>13000	0.12	450
C0-1N5S-E-10	1.5	250mV/100MHz	4	10000	>13000	0.13	430
C0-1N8S-E-10	1.8	250mV/100MHz	4	10000	>13000	0.16	390
C0-2N0S-E-10	2.0	250mV/100MHz	4	8800	>13000	0.17	380
C0-2N1S-E-10	2.1	250mV/100MHz	4	8800	>13000	0.17	380
C0-2N2S-E-10	2.2	250mV/100MHz	4	8800	12500	0.19	360
C0-2N4S-E-10	2.4	250mV/100MHz	4	8300	11700	0.2	350
C0-2N7S-E-10	2.7	250mV/100MHz	4	7700	11000	0.21	340
C0-3N0S-E-10	3.0	250mV/100MHz	4	7200	11000	0.22	330
C0-3N3S-E-10	3.3	250mV/100MHz	4	6700	9600	0.23	320
C0-3N6S-E-10	3.6	250mV/100MHz	4	6400	9100	0.25	310
C0-3N9S-E-10	3.9	250mV/100MHz	4	6000	8600	0.27	300
C0-4N3S-E-10	4.3	250mV/100MHz	4	5700	8100	0.3	280
C0-4N7S-E-10	4.7	250mV/100MHz	4	5300	7600	0.3	280
C0-5N1S-E-10	5.1	250mV/100MHz	4	5000	7100	0.33	270
C0-5N6S-E-10	5.6	250mV/100MHz	4	4600	6600	0.36	260
C0-6N2S-E-10	6.2	250mV/100MHz	4	4200	6100	0.38	250

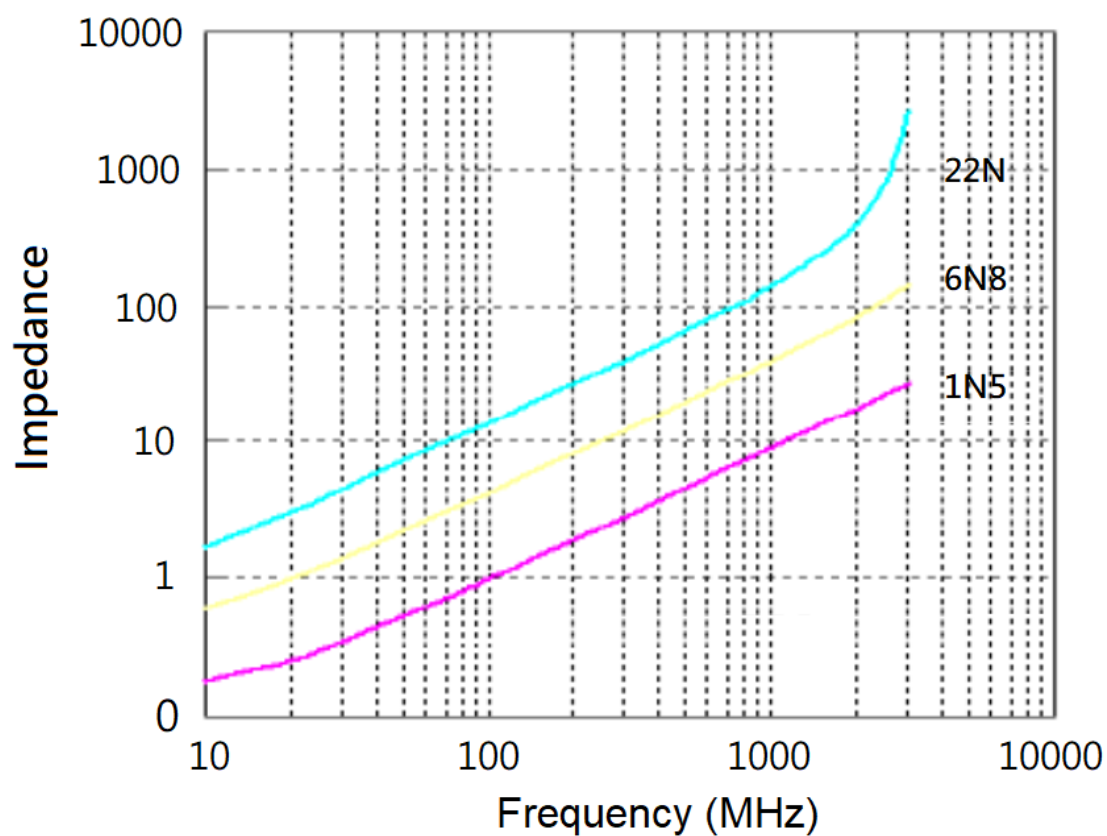
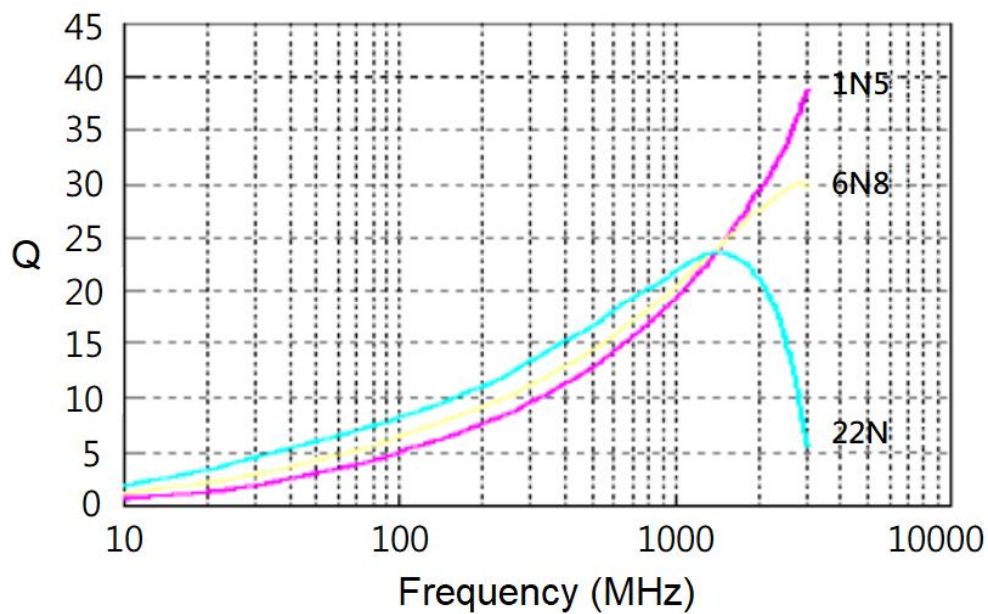
NOTE: Specifications subject to change without notice. Please check our website for latest information.

Part Number	Inductance (nH) ±5%	Test Frequency	Q Min	SRF (MHz)		DCR (Ω) Max	Rated Current (mA) Max
				Min	Typ		
C0-6N8J-E-10	6.8	250mV/100MHz	4	3900	5600	0.39	250
C0-7N5J-E-10	7.5	250mV/100MHz	4	3600	5300	0.41	240
C0-8N2J-E-10	8.2	250mV/100MHz	4	3400	4900	0.45	230
C0-9N1J-E-10	9.1	250mV/100MHz	4	3200	4600	0.48	220
C0-10NJ-E-10	10	250mV/100MHz	4	2900	4200	0.51	220
C0-12NJ-E-10	12	250mV/100MHz	4	2700	3800	0.68	190
C0-15NJ-E-10	15	250mV/100MHz	4	2300	3100	0.71	180
C0-18NJ-E-10	18	250mV/100MHz	4	2100	3000	0.81	170
C0-22NJ-E-10	22	250mV/100MHz	4	1800	2600	1.0	150
C0-27NJ-E-10	27	250mV/100MHz	4	1800	2600	1.35	120

5. Characteristics Curve



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



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

6. Soldering Specification

Mildly activated rosin fluxes are preferred. Our 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.

6-1. IR Soldering Reflow

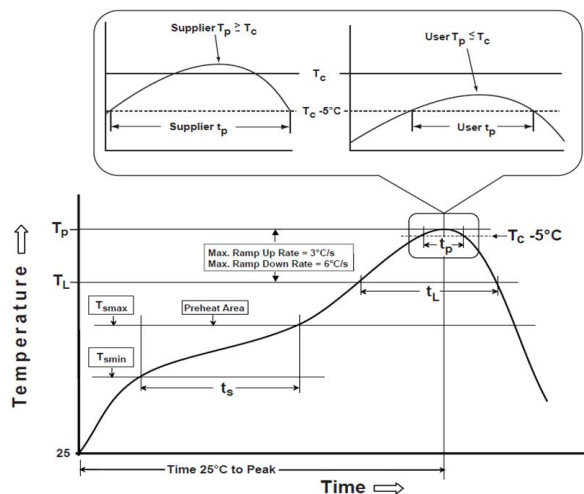
Recommended temperature profiles for lead free re-flow soldering in Figure 1, Table 1.1 & 1.2 (J-STD-020E).

6-2. Iron Reflow

Products attachment with a 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 (Figure 2).

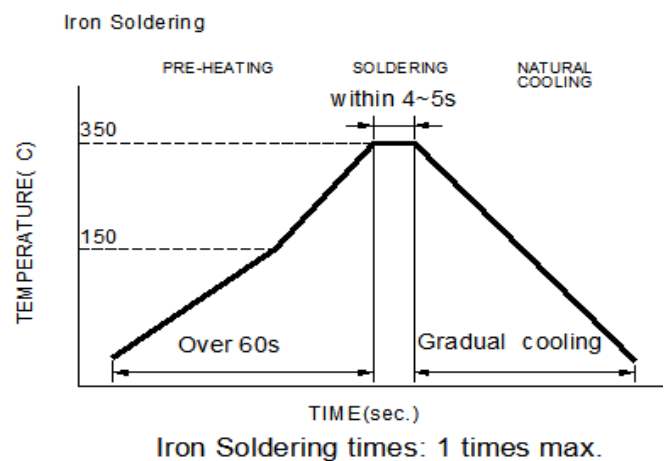
Note:

- Preheat circuit and products to 150°C.
- 355°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 4~5 sec.



Reflow times: 3 times Max

Figure 1: IR Soldering Reflow



Soldering iron method: 350±5°C Max

Figure 2: Iron soldering temperature profiles

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

Table (1.1) Reflow Profiles

Profile Type:	Pb-Free Assembly
Preheat	
-Temperature Min (T_{\min})	150°C
-Temperature Max (T_{\max})	200°C
-Time (t_s) from (T_{\min} to T_{\max})	60-120seconds
Ramp-up rate (T_L to T_p)	3°C /second max.
Liquids temperature (T_L)	217°C
Time (t_L) maintained above T_L	60-150 seconds
Classification temperature (T_c)	See Table (1.2)
Time (t_p) at $T_c - 5^\circ\text{C}$ (T_p should be equal to or less than T_c .)	* < 30 seconds
Ramp-down rate (T_p to T_L)	6°C /second max.
Time 25°C to peak temperature	8 minutes max.

T_p : maximum peak package body temperature, **T_c** : the classification temperature.

For user (customer) **T_p** should be equal to or less than **T_c** .

*Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.

Table (1.2) Package Thickness/Volume and Classification Temperature (T_c)

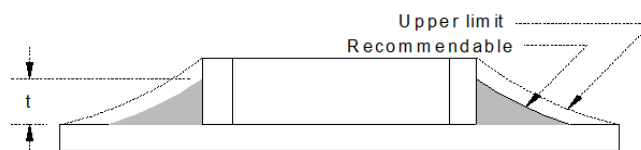
	Package Thickness	Volume mm ³ <350	Volume mm ³ 350-2000	Volume mm ³ >2000
PB-Free Assembly	<1.6mm	260°C	260°C	260°C
	1.6-2.5mm	260°C	250°C	245°C
	≥2.5mm	250°C	245°C	245°C

Reflow is referred to standard IPC/JEDEC J-STD-020E.

6-3. 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 exceeded as shown in the Figure below.

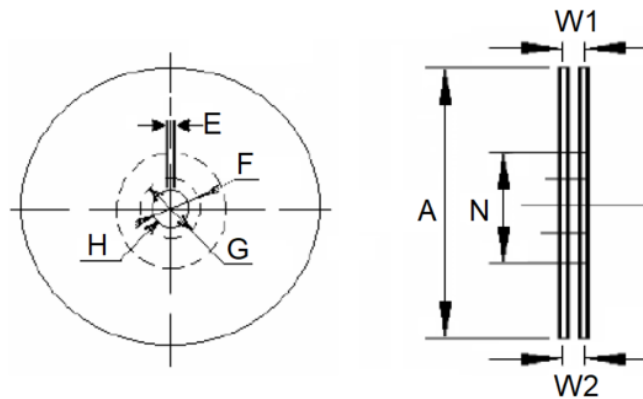
Minimum fillet height = soldering thickness + 25% product height.



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

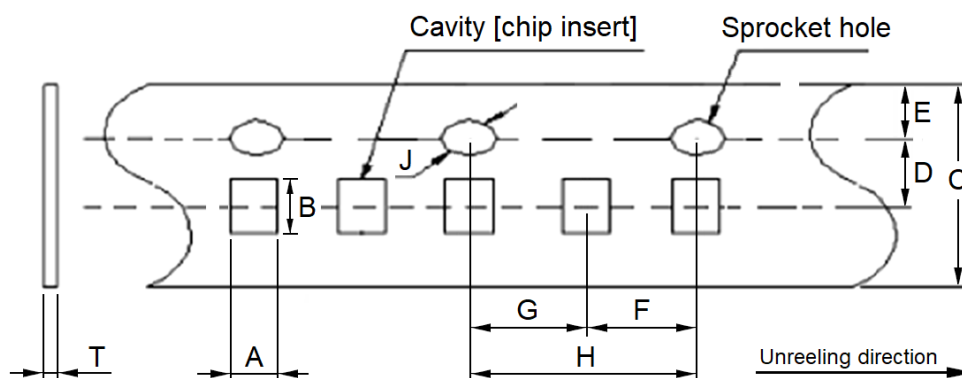
7. Packaging Information

7-1. Reel Dimension (Unit: mm)



Type	A	N	W1	W2
7"x8mm	178.0±2.0	50.0 Min	10.0±1.5	20.0 Max
E	F	G	H	-
2.0±0.5	13.0±0.5	21.0±0.8	R1.0	-

7-2. Tape Dimension (Unit: mm)



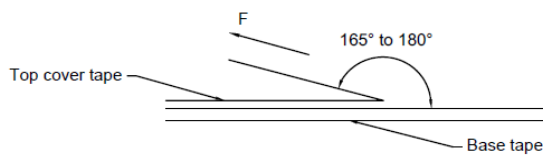
A	B	C	D	E
0.38±0.04	0.68±0.04	8.00±0.20	3.50±0.05	1.75±0.05
F	G	H	J	T
2.00±0.05	2.00±0.05	4.00±0.10	1.50+0.10/-0.00	1.10 Max

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

7-3. Packaging Quantity (Unit: Pcs)

Chip/ Reel	15,000
Inner Box	75,000
Outer Box	450,000

7-4. Tearing Off Force



The force for tearing off cover tape is according to the follow table, in the arrow direction under the following conditions.

(Referenced ANSI/EIA-481-D-2008 of 4.11 standard)

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed (mm/min)
5~35	45~85	860~1060	300±10

Tape Size	8 mm	12 to 56 mm	72 mm or Wider
Tearing Off Force (grams)	10~100	10~130	10~150

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.

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