

## 1. Part No. Expression

**L 252010 R 47 M - 10**

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

(a) Series Code

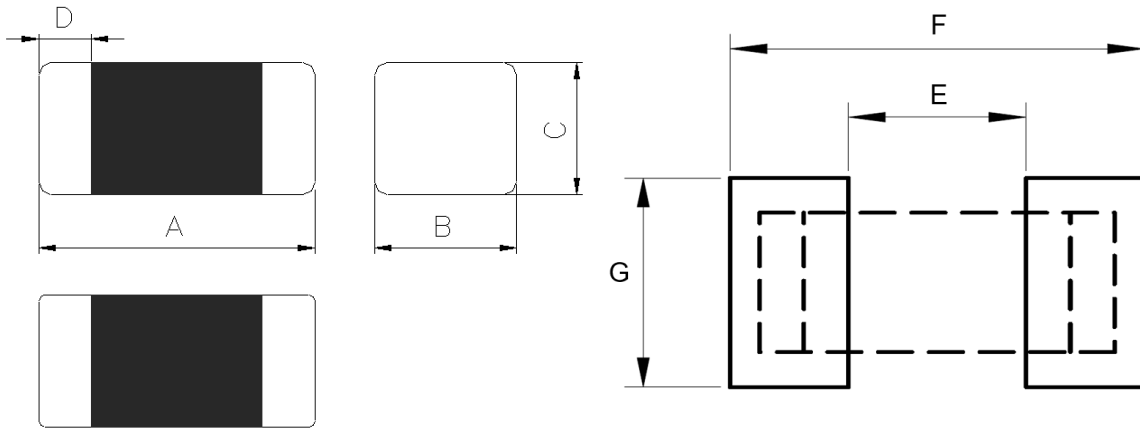
(b) Dimension Code

(c) Inductance Code

(d) Tolerance Code

(e) Internal Code

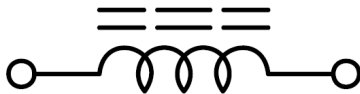
## 2. Configuration & Dimensions: (Unit: mm)



Recommended PCB Layout

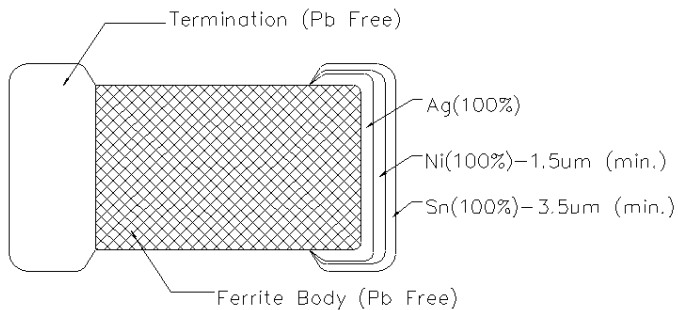
A	B	C	D	E	F	G
2.5±0.2	2.0±0.2	0.9±0.1	0.6±0.2	1.2 Ref	3.0 Ref	2.3 Ref

## 3. Schematic



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

## 4. Material List



## 5. General Specifications

- (a) Operating Temp. : -55°C to +125°C (including self-temperature rise).
- (b) Storage Temp. : -10°C to +40°C (on board).
- (c) The maximum rated current is measured at the ambient temperature increasing to 40°C within 2 hours.
- (d) Storage Condition (Component in its packaging)
  - i) Temperature: Less than 40°C
  - ii) Humidity: 60% RH

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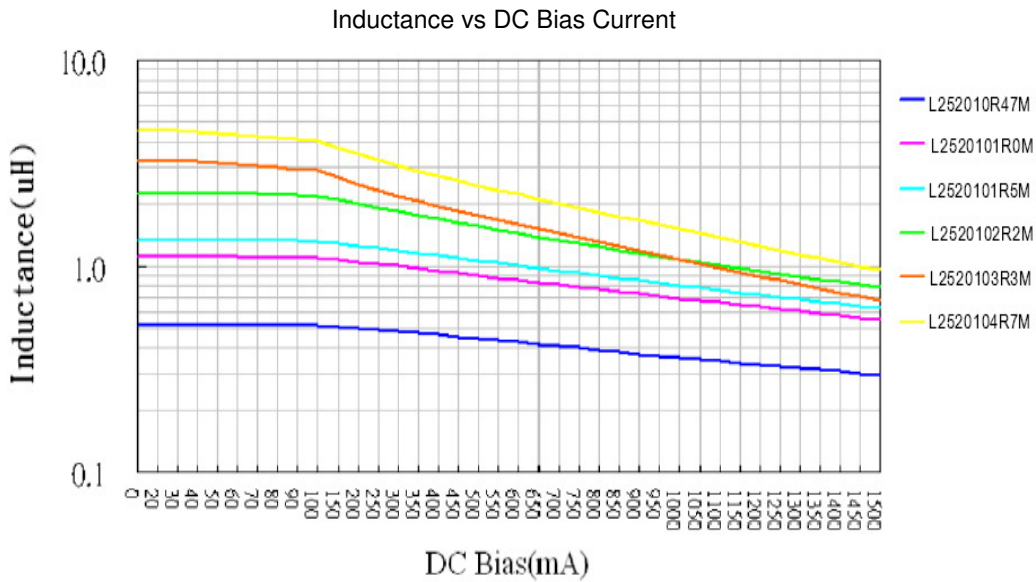
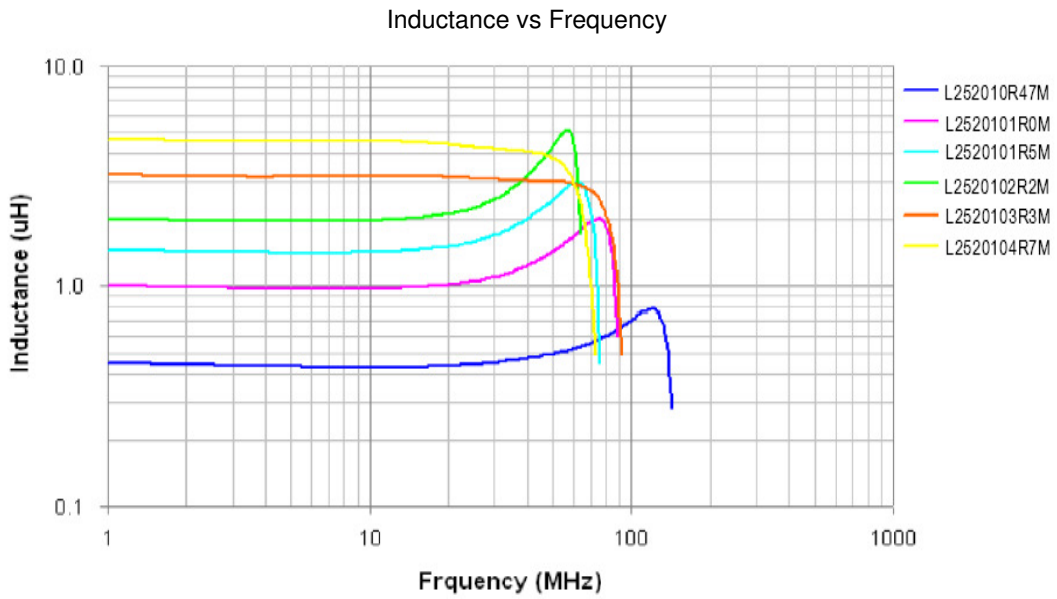
## 6. Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (Hz)	DCR (Ω)	Rated Current (mA) Max.	SRF (MHz) Min.
L252010R47M-10	0.47± 20%	250mV/1M	0.07± 25%	1800	100
L252010R68M-10	0.68± 20%	250mV/1M	0.09± 25%	1700	90
L252010R82M-10	0.82± 20%	250mV/1M	0.10± 25%	1700	80
L2520101R0M-10	1.00 ± 20%	250mV/1M	0.11± 25%	1600	60
L2520101R2M-10	1.20± 20%	250mV/1M	0.11± 25%	1600	60
L2520101R5M-10	1.50± 20%	250mV/1M	0.13± 25%	1500	50
L2520101R8M-10	1.80± 20%	250mV/1M	0.13± 25%	1500	50
L2520102R2M-10	2.20± 20%	250mV/1M	0.17± 25%	1300	40
L2520103R3M-10	3.30± 20%	250mV/1M	0.16± 25%	1200	30
L2520104R7M-10	4.70± 20%	250mV/1M	0.20± 25%	1100	25

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## 7. Characteristics Curves



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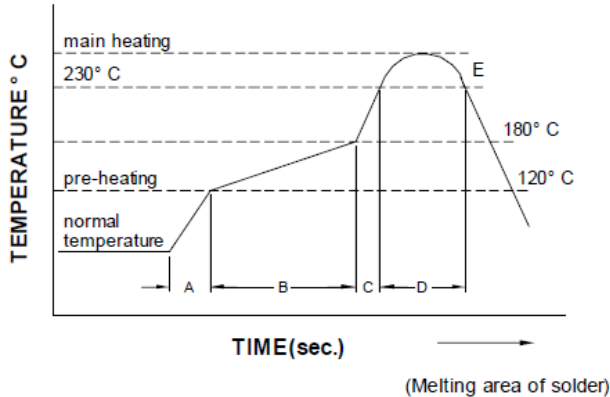


## 8. Soldering and Mounting

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

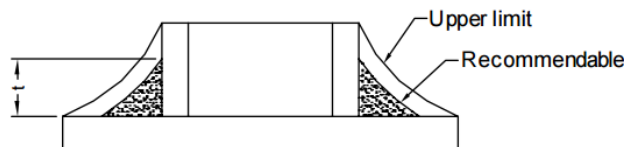
Products attachment with soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended.

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.

### 8-3 Soldering Volume

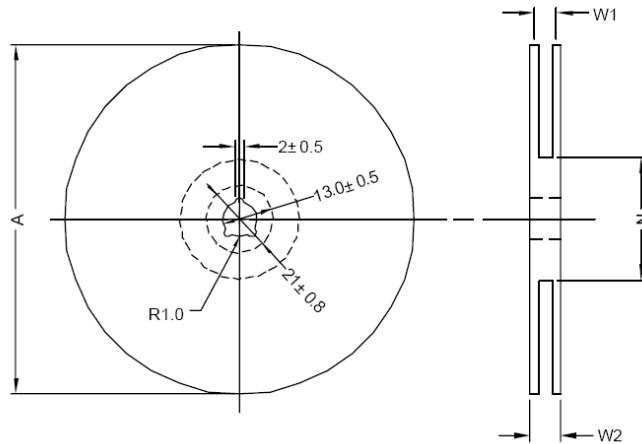
Accordingly increasing the solder volume, the mechanical stress to product is also increased. Exceeding solder volume may cause the failure of mechanical or electrical performance. Solder shall be used not to be exceeding as following diagram. Minimum fillet height = soldering thickness + 25% product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



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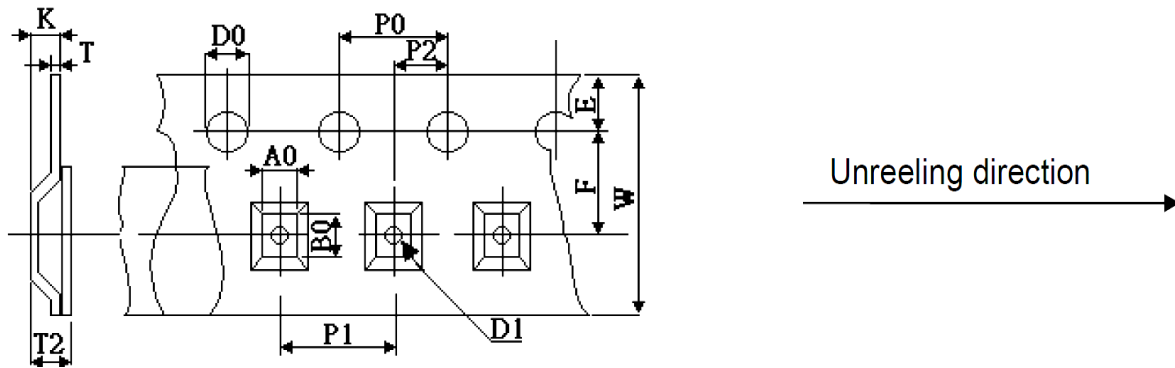
## 9. Packaging Information

### 9-1 Reel Dimension



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

### 9-2 Tape Dimension



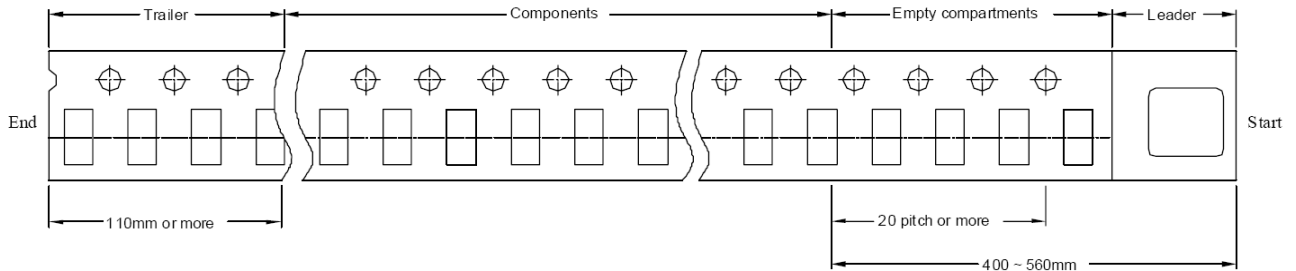
A0(mm)	B0(mm)	W(mm)	F(mm)	E(mm)	P1(mm)	P2(mm)
2.20±0.10	2.85±0.10	8.00±0.10	3.50±0.05	1.75±0.10	4.00±0.10	2.00±0.05
P0(mm)	D0(mm)	D1(mm)	K(mm)	T(mm)	T2(mm)	
4.00±0.10	1.55±0.05	1.00±0.10	1.37±0.15	0.20±0.05	1.40±0.20	

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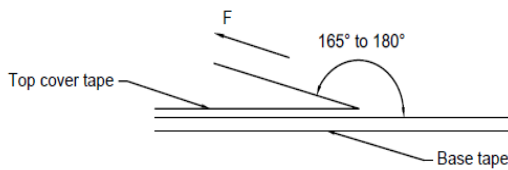
### 9-3 Packaging Quantity

Chip Size	L252010
Chip/Reel	3000

### 9-4 Leader and trailer Tape



### 9-5 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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