

1. Part No. Expression:

W 3 0 1 2 E - 5 0 1 M

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

(a) Series Code

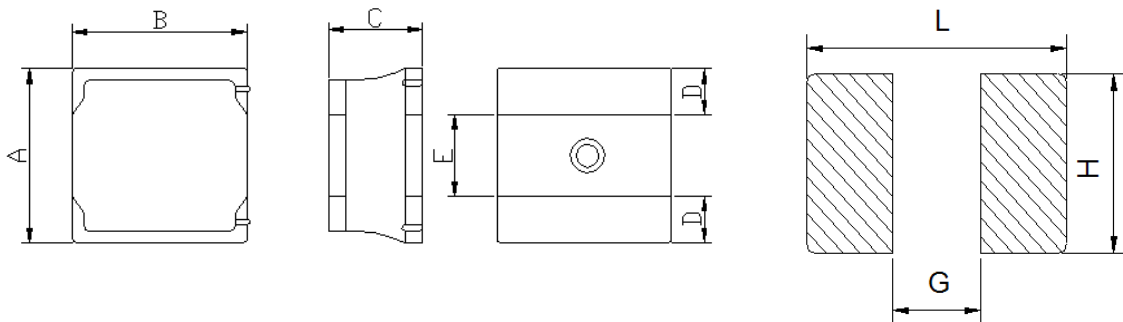
(b) Dimension Code

(c) Material Code

(d) Inductance Code

(e) Tolerance Code

2. Configuration & Dimensions:

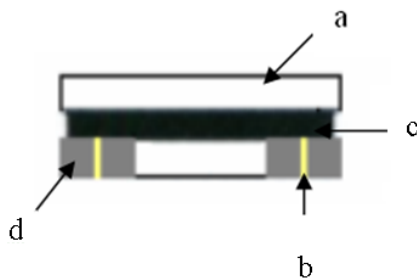


Recommended PCB layout

Unit: mm

A	B	C	D	E	L	G	H
3.0±0.2	3.0±0.2	1.2 Max.	1.0 Ref.	1.0 Ref.	3.2 Ref.	1.0 Ref.	3.2 Ref.

3. Material List:



(a) Core

(b) Wire

(c) Glue

(d) Terminal

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

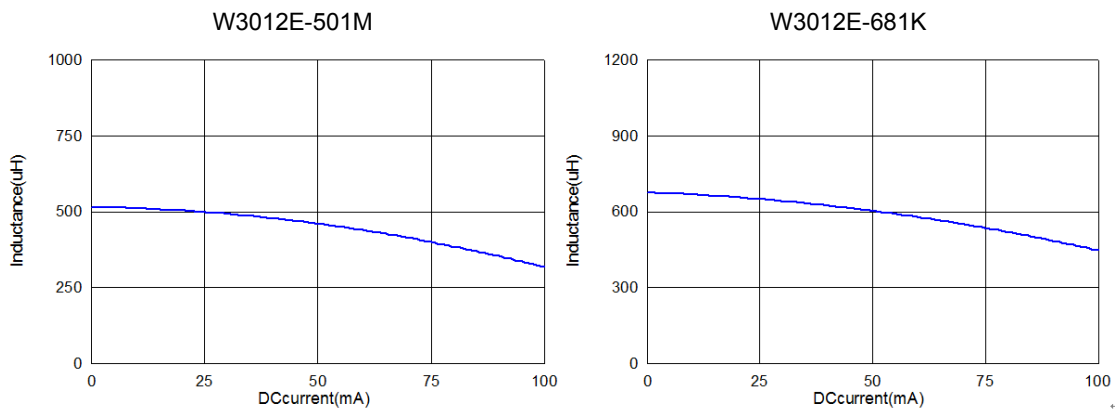
4. General Specification:

- (a) Operating Temp. : -40°C to +125°C(Including self - temperature rise)
- (b) Storage Temp. : -40°C to +125°C (on board)
- (c) Humidity Range: 85 ± 2% RH
- (d) Storage Condition (Component in its packaging)
 - i) Temperature: Less than 40°C
 - ii) Humidity : 60% RH

5. Electrical Characteristics:

Part Number	Inductance (uH)	Test Frequency (Hz)	SRF (MHz) Typ.	DCR (Ω) Max.	Rated Current (mA) Max.
W3012E-501M	500±20%	1V/10K	5.0	18	80
W3012E-681K	680±10%	1V/10K	5.0	22	80

6. Characteristics Curves:



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7. Soldering:

Mildly activated rosin fluxes are preferred. Our terminations are suitable for all 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

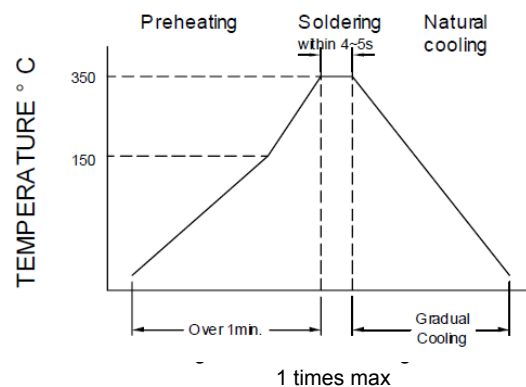
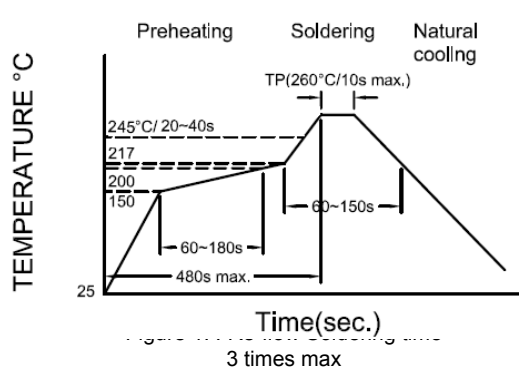
Recommended temperature profiles for re-flow soldering in Figure 1.

7-2 Soldering Iron (Figure 2)

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 :

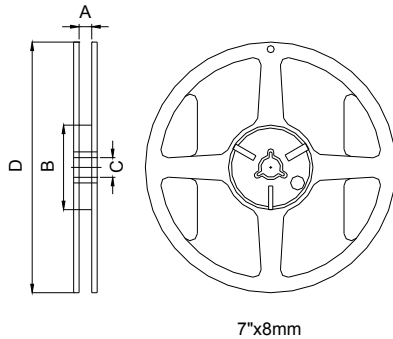
- a) Preheat circuit and products to 150°C.
- b) 355°C tip temperature (Max.)
- c) Never contact the ceramic with the iron tip
- d) 1.0mm tip diameter (Max.)
- e) Use a 20 watt soldering iron with tip diameter of 1.0mm
- f) Limit soldering time to 4~5 sec.



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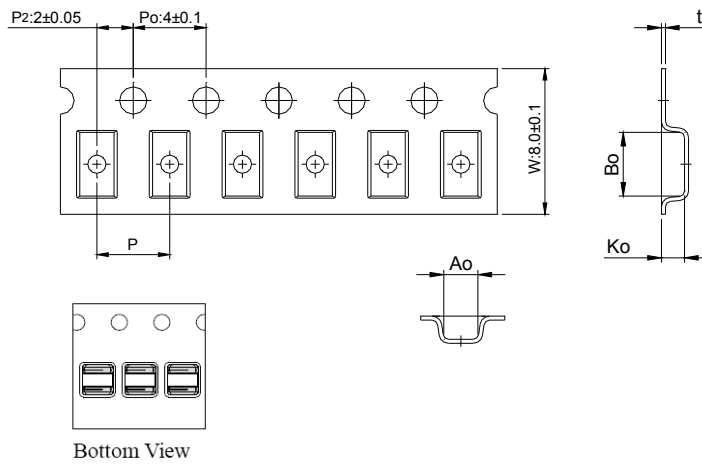
8. Packaging Information:

8-1 Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	8.4±1.0	50 Min.	13±0.8	178±2.0

8-2 Tape Dimension



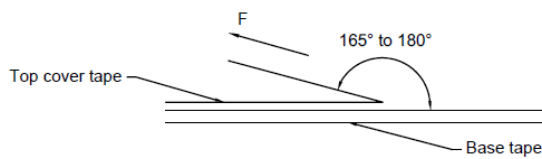
Size	Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	t(mm)
W3012E	3.20±0.05	3.20±0.05	1.40±0.2	4.00±0.05	0.23±0.05

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8-3 Packaging Quantity

Chip Size	W3012E
Chip/Reel	2,000

8-4 Tearing Off Force



The force for tearing off cover tape is 15 to 80 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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