

1. Part No. Expression:

**Z0W220-RE-□□**

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

(a) Series Code

(b) Dimension Code

(c) Material Code

(d) Impedance Code

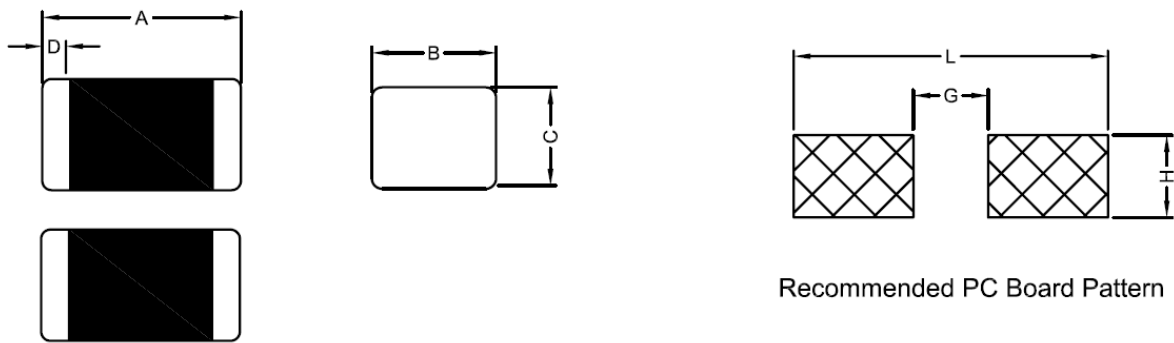
(e) Packaging Code

(f) Current Code

(g) 10: Standard

11-99: Internal Controlled Code

2. Configuration & Dimensions:

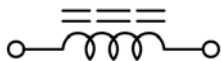


Recommended PC Board Pattern

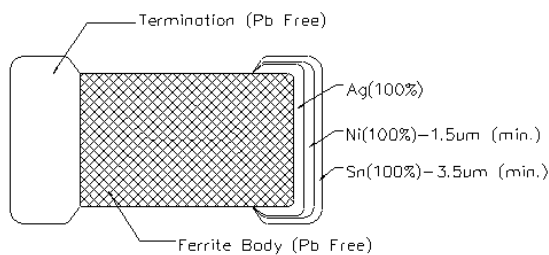
Unit: mm

A	B	C	D	G	H	L
0.60±0.03	0.30±0.03	0.30±0.03	0.15±0.05	0.30 Ref.	0.40 Ref.	1.00 Ref.

3. Schematic:



4. Material List:



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



**5. 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) Temperature Rise: 20°C Max. at Rated Current < 1A.
- (d) Humidity Range: 85 ± 2% RH.
- (e) Storage Condition (Component in its packaging)
  - i) Temperature: Less than 40%
  - ii) Humidity : 60% RH

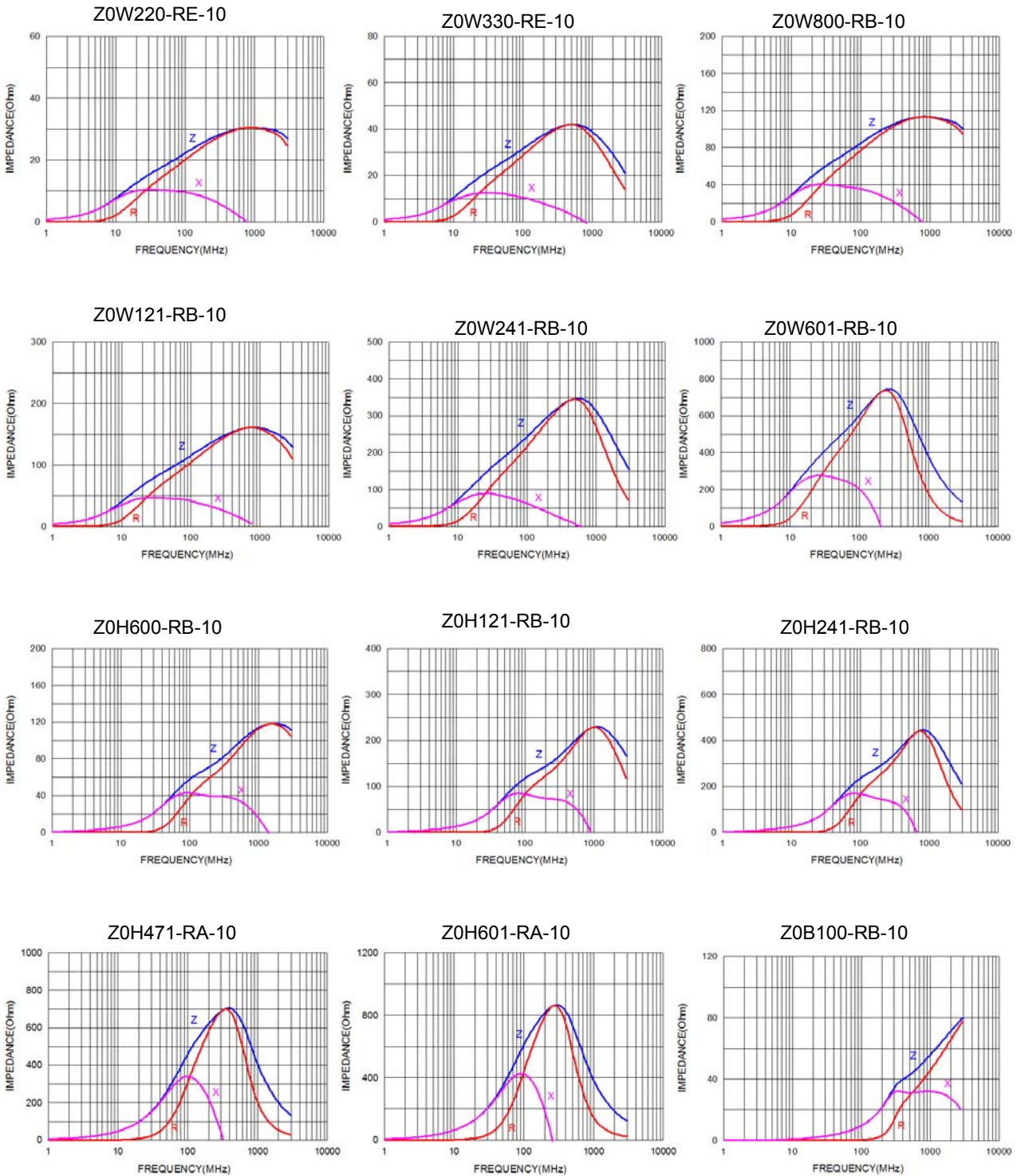
**6. Electrical Characteristics:**

Part Number	Impedance (Ω) ±25%	Test Frequency (MHz)	DCR (Ω) Max.	Rated Current (mA) Max.
Z0W220-RE-10	22	100	0.065	500
Z0W330-RE-10	33	100	0.07	500
Z0W800-RB-10	80	100	0.40	200
Z0W121-RB-10	120	100	0.45	200
Z0W241-RB-10	240	100	0.65	200
Z0W601-RB-10	600	100	1.20	150
Z0H600-RB-10	60	100	0.25	200
Z0H121-RB-10	120	100	0.40	200
Z0H241-RB-10	240	100	0.80	200
Z0H471-RA-10	470	100	1.05	100
Z0H601-RA-10	600	100	1.20	100
Z0B100-RB-10	10	100	0.25	200
Z0B220-RB-10	22	100	0.45	200
Z0B330-RB-10	33	100	0.55	150
Z0B470-RB-10	47	100	0.70	150
Z0B560-RA-10	56	100	1.00	100
Z0B800-RA-10	80	100	1.30	100
Z0B121-RA-10	120	100	1.50	100

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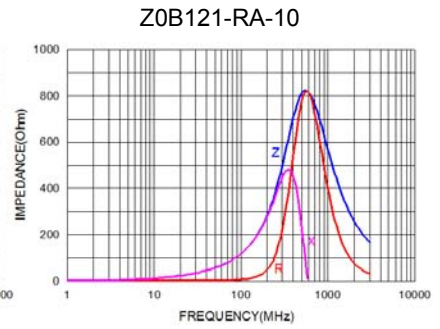
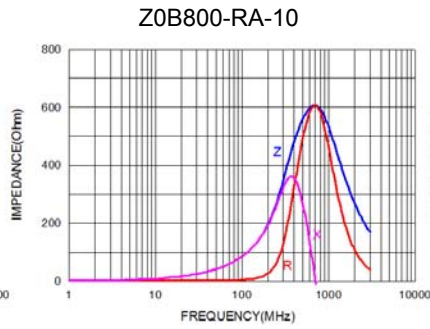
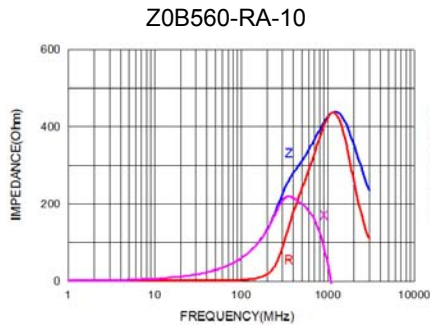
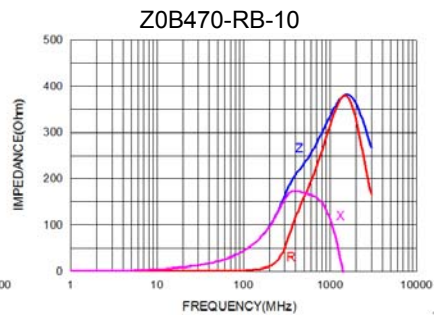
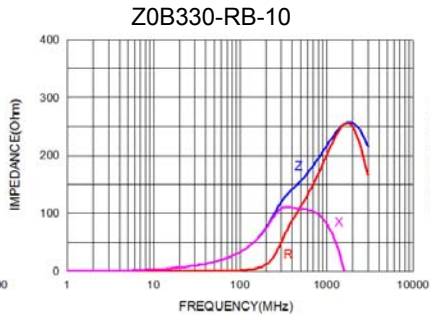
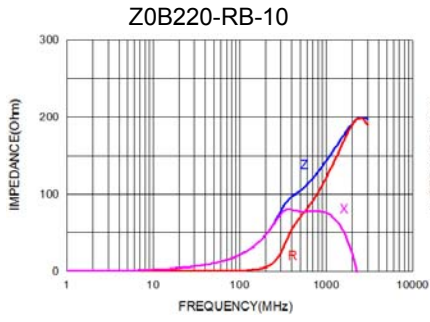


7. Characteristics Curve:



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**8. 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.

Note:

If wave soldering is used, there will be some risk

Reflow soldering temperatures below 240°C, there will be non-wetting risk

**8-1 Solder Re-flow:**

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

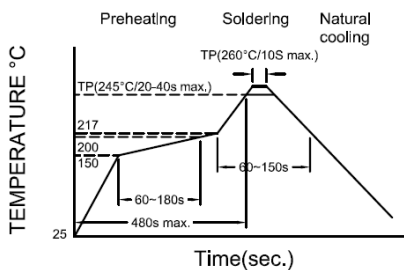
**8-2 Soldering Iron (Figure 2):**

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.

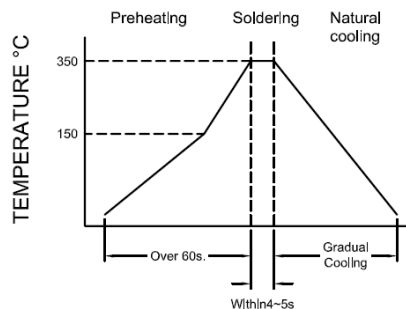
Note :

- a) Preheat circuit and products to 150°C.
- b) 350°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 secs.



Reflow times: 3 times max

Fig.1



Iron Soldering times: 1 times max

Fig.2

**8-3 Soldering Volume:**

By 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 exceed as shown in

Figure 3. Minimum fillet height = soldering thickness +25% product height

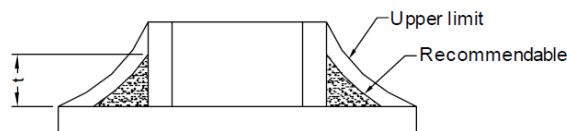
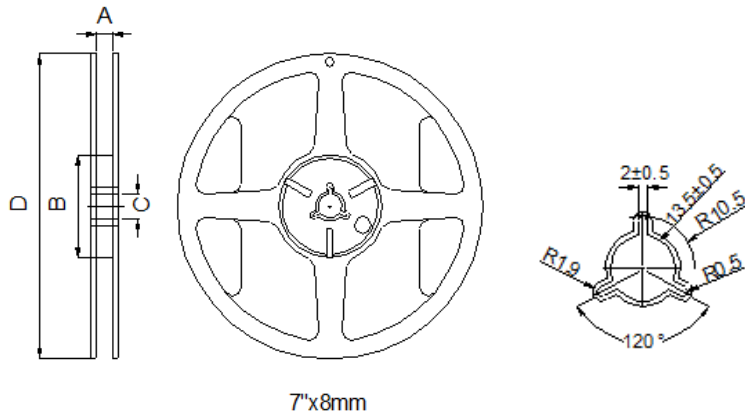


Figure 3

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9. Packaging Information:

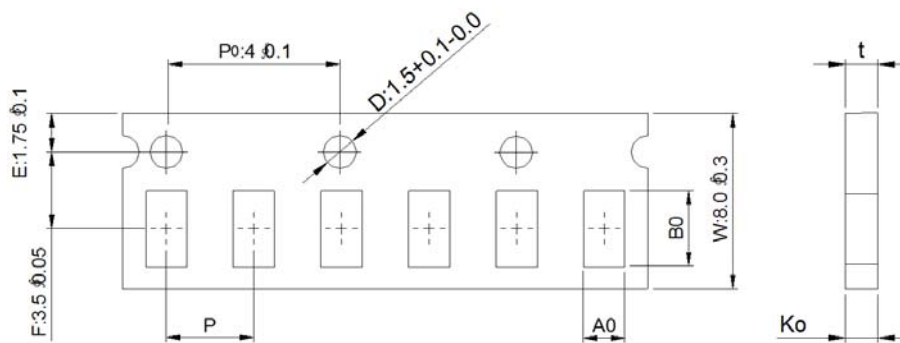
9-1 Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	9.0±0.5	60±2	13.5±0.5	178±2

9-2 Tape Dimension

Material of taping is paper



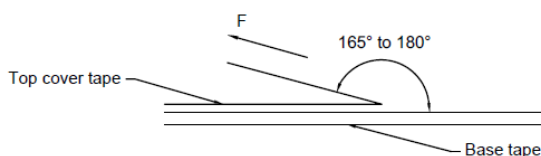
Size	Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	t(mm)
Z0	0.70±0.06	0.40±0.06	0.45 Max.	2.00±0.05	0.45 Max.

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### 9-3 Packaging Quantity

Chip Size	Z0
Chip/Reel	15000
Inner Box	75000
Middle Box	375000
Carton	750000

### 9-4 Tearing Off Force



The force for tearing off cover tape is 15 to 60 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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