

# 2.5 x 2.0mm INDUSTRIAL GRADE CERAMIC RESONATOR



2.5 x 2.0 x 1.0 mm

**AWSZT-CW**

**RoHS/RoHS II compliant**  
**Pb in ceramic, exemption (7c-I)**

**Moisture Sensitivity Level (MSL) – This product is not Moisture Sensitive - MSL = 1**

## FEATURES:

- Low resonant impedance
- Built-in load capacitors
- IR reflow capable

## APPLICATIONS:

- Remote controls, Microprocessor clocks, Mobile phones, DVD & CD-Roms, Electric appliances
- Consumer electronics

## ELECTRICAL CHARACTERISTICS:

| Parameters                                | Minimum          | Typical | Maximum  | Units      | Notes                 |
|-------------------------------------------|------------------|---------|----------|------------|-----------------------|
| Frequency Range                           | 20.00            |         | 60.00    | MHz        |                       |
| Resonant Impedance (Ro)                   |                  |         | 60       | $\Omega$   | 20.00 MHz – 25.99 MHz |
|                                           |                  |         | 50       |            | 26.00 MHz – 35.00 MHz |
|                                           |                  |         | 50       |            | 35.01 MHz – 60.00 MHz |
| Load Capacitance for Test Circuit (C1=C2) | 10 – 20%         | 10      | 10 + 20% | pF         | 20.00 MHz – 25.99 MHz |
|                                           | 5 – 20%          | 5       | 5 + 20%  |            | 26.00 MHz – 35.00 MHz |
|                                           | 5 – 20%          | 5       | 5 + 20%  |            | 35.01 MHz – 60.00 MHz |
| Frequency Tolerance @25 °C                | -0.5             |         | 0.5      | %          |                       |
| Frequency Stability @ -25°C to +85°C      | -0.2             |         | 0.2      | %          |                       |
| Withstanding Voltage                      |                  | 50      |          | V          | DC , 1 min            |
| Rating Voltage                            | (1) D.C.Voltage  |         | 6        | V          |                       |
|                                           | (2) A.C. Voltage |         | 15       | Vp-p.      |                       |
| Insulation Resistance                     | 500              |         |          | M $\Omega$ | 10V, 1min             |
| Operation Temperature                     | -25              |         | 85       | °C         |                       |
| Storage Temperature                       | -55              |         | 85       | °C         |                       |
| Aging Rate (Fosc) (10 years)              | -0.2             |         | 0.2      | %          |                       |

## OPTIONS & PART IDENTIFICATION:

**AWSZT – XX.XX CW - □**

### Frequency

Frequency in MHz

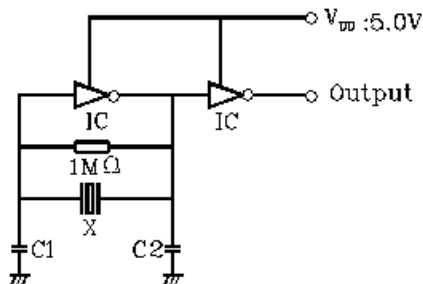
### Packaging

T: 3000pcs/Reel

Blank: Bulk

## TEST CONDITION AND TEST CIRCUIT:

Parts shall be measured under a condition (Temp.: 20±15°C, Humidity: 65±20% R.H.) unless the standard condition (Temp: 25±3°C, Humidity: 65±10% R.H.) is regulated to measure



X: Ceramic Resonator

C1=C2: 10pF ±20% (20.00MHz~25.99MHz)

5pF ±20% (26.00MHz~35.00MHz)

5pF ±20% (35.01MHz~60.00MHz)



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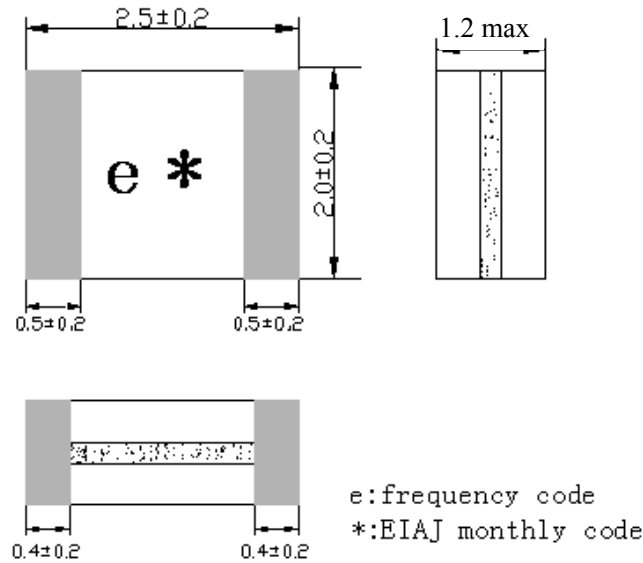
AWSZT-CW

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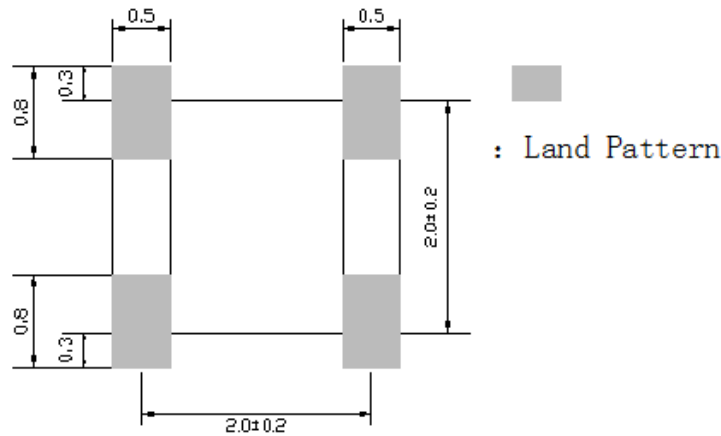


2.5 x 2.0 x 1.0 mm

## ➤ OUTLINE DRAWING:

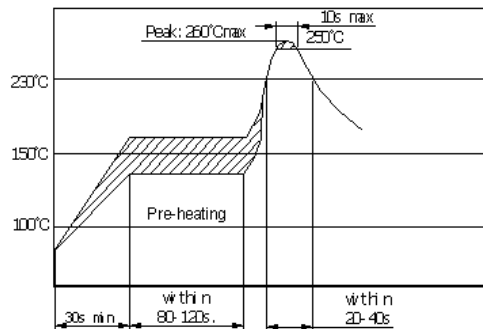


### Recommended Land Pattern



Dimension: mm

## ➤ REFLOW PROFILE:



# 2.5 x 2.0mm INDUSTRIAL GRADE CERAMIC RESONATOR



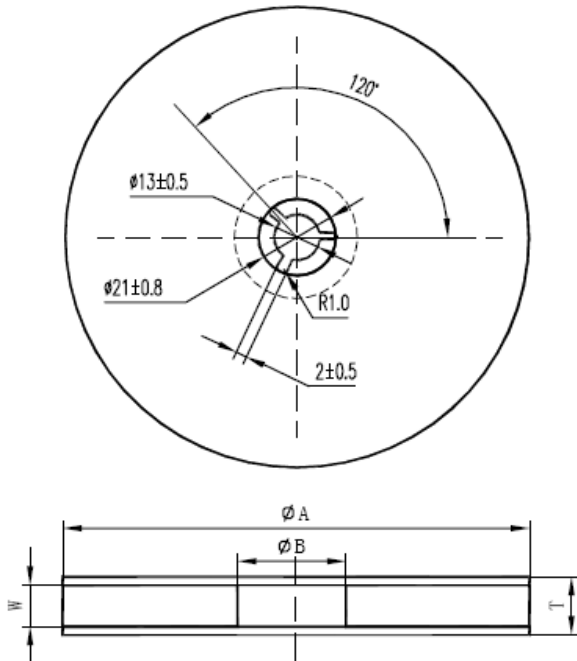
2.5 x 2.0 x 1.0 mm

AWSZT-CW

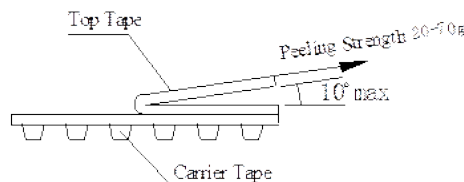
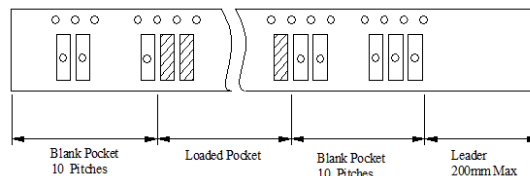
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## TAPE & REEL:

**T: tape and reel (3,000pcs/reel)**



| ΦA    | ΦB      | W       | T        | Carrier tape size |
|-------|---------|---------|----------|-------------------|
| 180±3 | 60 min. | 8.4 min | 12.4 max | 8                 |



**Note:** upon opening the original packaging, it is recommended that the product be used within 1 year. If the product will not be used within 1 year, it is recommended that the product be re-sealed in airtight packaging according to MSL 1 requirements to maintain solderability.

Dimension: mm

## CAUTION:

- (1) Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components as this will cause damage to the component.
- (2) This component is not hermetically sealed. Do not clean or wash the component.
- (3) Reflow Soldering: Do not use strong acidity flux, such as flux with chlorine content of greater than 0.2wt% during Reflow Soldering.
- (4) Do not expose the component to open flame.
- (5) This specification applies to the functionality of the component as a single unit.
- (6) Storage Conditions: If the product is to be stored for a period greater than Six Months after the Delivery Date, it is recommended that customers confirm the solderability and characteristics for the product prior to use.
- (7) This product is not recommended for use in the following applications: Automotive, Medical, Military, Safety, or any other high-reliability, life dependant applications. Contact Abracon Corporation prior to using this product when in doubt.