

## 3.7 x 3.1 mm

**RoHS**  
Compliant

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

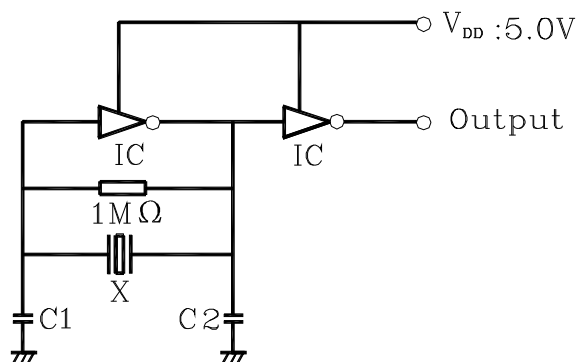
## ➤ ELECTRICAL CHARACTERISTICS:

| Item                                    | Requirement                     |
|-----------------------------------------|---------------------------------|
| Frequency Range                         | 8.00MHz to 13.00MHz             |
|                                         | 16.00MHz to 50.00MHz            |
| Resonant Impedance                      | See Table below                 |
| Frequency Tolerance                     | ± 0.5%                          |
| Frequency Stability<br>(-25°C to +85°C) | ±0.4% max. (8.00MHz~13.00MHz)   |
|                                         | ±0.3% max. (16.00MHz~50.00MHz)  |
| Withstanding Voltage                    | 50V (DC , 1 min)                |
| Rating Voltage<br>(1) D.C.Voltage       | 6 V.D.C. max                    |
| (2) A.C. Voltage                        | 15 Vp-p. max                    |
| Insulation Resistance                   | 100MΩ min. (10V, 1min)          |
| Operation Temperature                   | -25°C to +85°C                  |
| Storage Temperature                     | -55°C to +85°C                  |
| Aging Rate (Fosc)                       | ±0.3% max. (from initial value) |

\* Please contact ABRACON for tighter stability and/or wider temperature range.

| Frequency range<br>(MHz) | Resonant Impedance<br>(Ro)(Ω) max | Load Capacitance for test circuit<br>C1=C2 (pF) |
|--------------------------|-----------------------------------|-------------------------------------------------|
| 8.00 MHz - 13.00 MHz     | 30 max                            | 30                                              |
| 16.00 MHz - 20.00 MHz    | 40 max                            | 30                                              |
| 20.01 MHz - 25.99 MHz    | 40 max                            | 15                                              |
| 26.00 MHz - 50.00 MHz    | 40 max                            | 5                                               |

➤ **TEST CONDITION AND TEST CIRCUIT:**



Parts shall be measured under a condition  
(Temp.:  $20 \pm 15^{\circ}\text{C}$ , Humidity:  $65 \pm 20\%$  R.H.)  
unless the standard condition (Temp:  $25 \pm 3^{\circ}\text{C}$ , Humidity:  $65 \pm 10\%$  R.H.)  
is regulated to measure

X: Ceramic Resonator

|                  |                     |
|------------------|---------------------|
| C1=C2: 30pF ±20% | (8.00MHz~13.00MHz)  |
| 30pF ±20%        | (16.00MHz~20.00MHz) |
| 15pF ±20%        | (20.01MHz~25.99MHz) |
| 5pF ±20%         | (26.00MHz~50.00MHz) |

➤ **OPTIONS & PART IDENTIFICATION:**

**AWSZT - XX.XXCV - ☐**

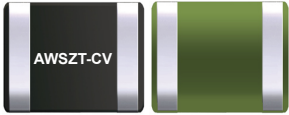


3.7 x 3.1 mm SMD CERAMIC RESONATOR

AWSZT-CV

Pb in ceramic  
(exempt per RoHS 2002/95/EC Annex (7))

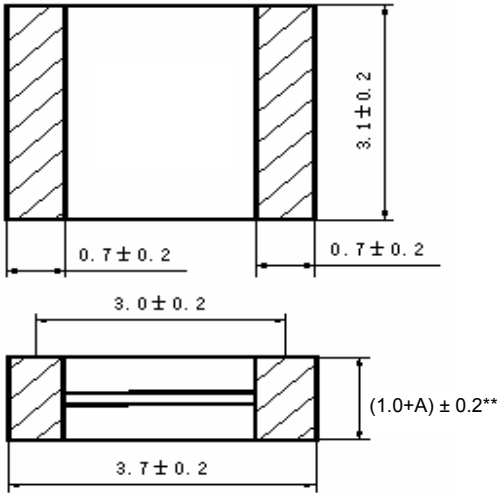
RoHS  
Compliant



3.7 x 3.1 mm

OUTLINE DRAWING:

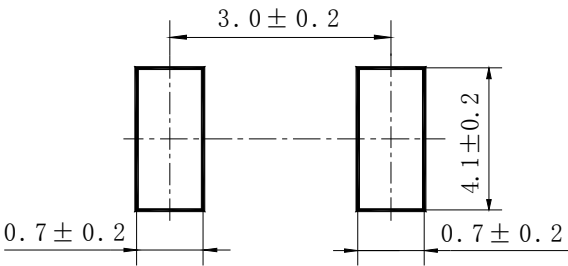
Dimensions: mm



① INPUT ② OUTPUT

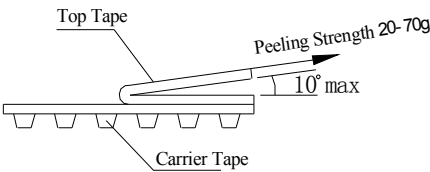
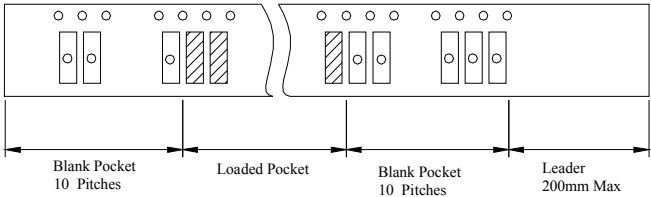
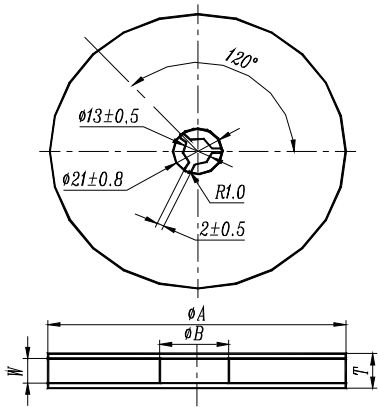
\*\* A stands for the thickness of the ceramic element, which varies with the frequency

RECOMMENDED LAND PATTERN



TAPE & REEL: (1,000pcs/reel)

Dimensions: mm



| φ A     | φ B   | W       | T       | Pieces per reel | Carrier tape size |
|---------|-------|---------|---------|-----------------|-------------------|
| 180 ± 3 | 60min | 12.4min | 19.4max | 1000typ.        | 12                |

# 3.7 x 3.1 mm SMD CERAMIC RESONATOR

AWSZT-CV

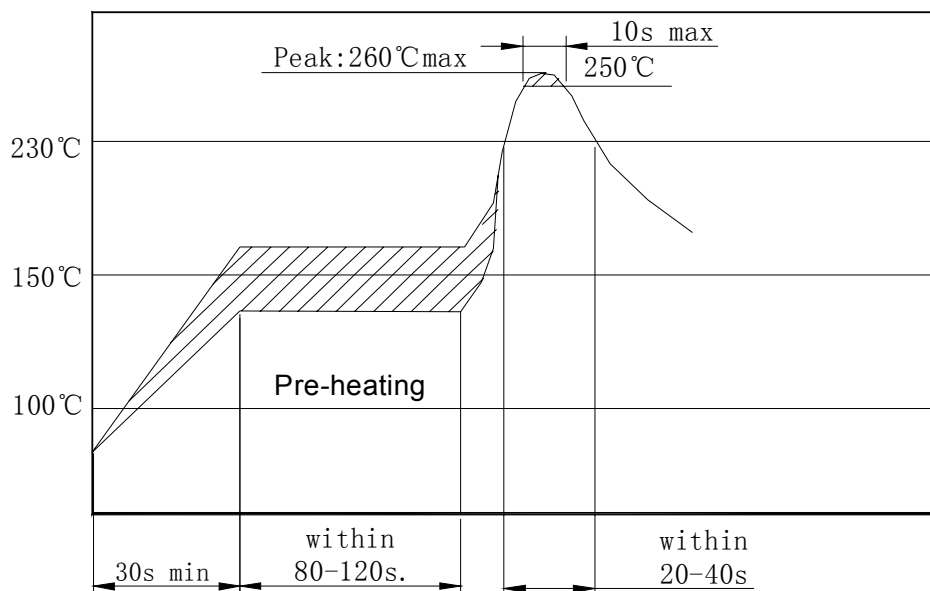
Pb in ceramic  
(exempt per RoHS 2002/95/EC Annex (7))

RoHS  
Compliant



3.7 x 3.1 mm

## REFLOW PROFILE:



## CAUTION

- 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.
- This component is not hermetically sealed. Do not clean or wash the component.
- Reflow soldering: Do not use strong acidity flux, such as flux with chlorine content of greater than 0.2wt% during reflow Soldering.
- Do not expose the component to open flame.
- This specification applies to the functionality of the component as a single unit. Customers are advised to insure that the component is thoroughly evaluated in the particular application.
- Shelf life: The warranted shelf life of this product is six months after the delivery date under the conditions of sealed, unopened, original packaging.
- 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.
- This product is not recommended for use in the following applications: Automotive, Medical, Military, Safety, or any other high-reliability, life-dependant application. Contact Abracon Corporation prior to using this product when in doubt.

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