



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# 3.7 x 3.1 mm INDUSTRIAL GRADE CERAMIC RESONATOR

**AWSZT-CV**

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



3.7 x 3.1 mm

## FEATURES:

- Low resonant impedance
- IR reflow capable
- Low cost

## APPLICATIONS:

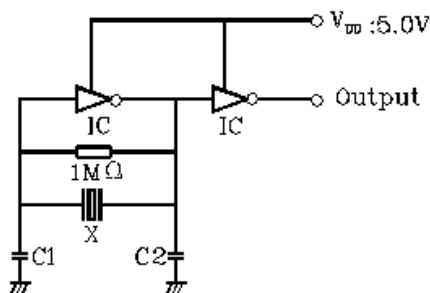
- Remote controls, Microprocessor clocks, Mobile phones, DVD & CD-Roms, Electric appliances
- Consumer electronics

## ELECTRICAL CHARACTERISTICS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	8.00		13.00	MHz	
	16.00		60.00		
Resonant Impedance (Ro)			30	Ω	8.00 MHz – 13.00 MHz
			40		16.00 MHz – 20.00 MHz
			40		20.01 MHz – 25.99 MHz
			40		26.00 MHz – 60.00 MHz
Load Capacitance for Test Circuit (C1=C2)	30 – 20%	30	30 + 20%	pF	8.00 MHz – 13.00 MHz
	30 – 20%	30	30 + 20%		16.00 MHz – 20.00 MHz
	15 – 20%	15	15 + 20%		20.01 MHz – 25.99 MHz
	5 – 20%	5	5 + 20%		26.00 MHz – 60.00 MHz
Frequency Tolerance @25 °C	-0.5		0.5	%	
Frequency Stability @ -25°C to +85°C	-0.4		0.4	%	8.00 MHz – 13.00 MHz
	-0.3		0.3		16.00 MHz – 60.00 MHz
Withstanding Voltage		50		V	DC , 1 min
Rating Voltage	(1) D.C. Voltage		6	V	
	(2) A.C. Voltage		15	Vp-p.	
Insulation Resistance	100			MΩ	10V, 1min
Operation Temperature	-25		85	°C	
Storage Temperature	-55		85	°C	
Aging Rate (Fosc) (10 years)	-0.3		0.3	%	

## 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: 30pF ±20% (8.00MHz~13.00MHz)  
 30pF ±20% (16.00MHz~20.00MHz)  
 15pF ±20% (20.01MHz~25.99MHz)  
 5pF ±20% (26.00MHz~60.00MHz)

## OPTIONS & PART IDENTIFICATION:

AWSZT – XX.XXCV – □

Frequency
Frequency in MHz

Packaging
T: 1000pcs/Reel
Blank: Bulk

# 3.7 x 3.1 mm INDUSTRIAL GRADE CERAMIC RESONATOR

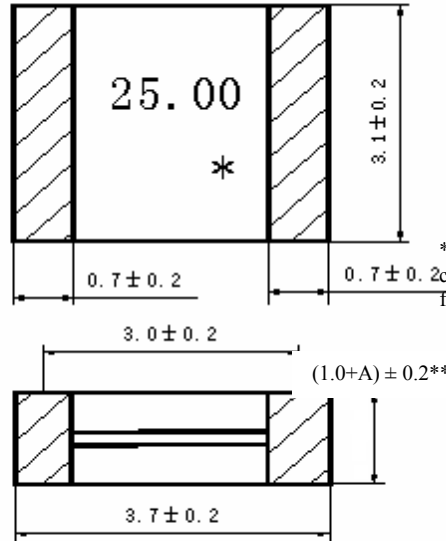
AWSZT-CV

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



3.7 x 3.1 mm

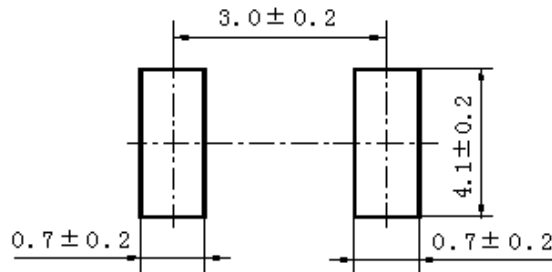
## OUTLINE DRAWING:



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

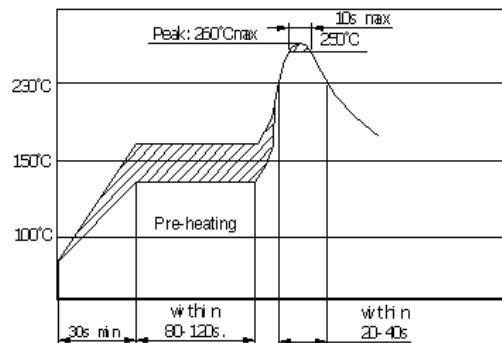
① INPUT ② OUTPUT  
\*: EIAJ MONTHLY CODE

### Recommended Land Pattern



Dimension: mm

## REFLOW PROFILE:



# 3.7 x 3.1 mm INDUSTRIAL GRADE CERAMIC RESONATOR

AWSZT-CV

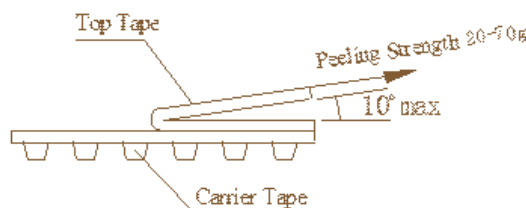
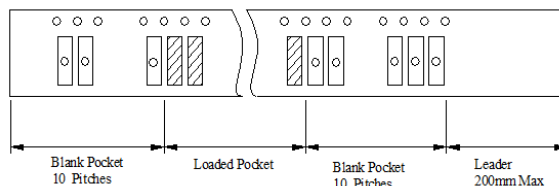
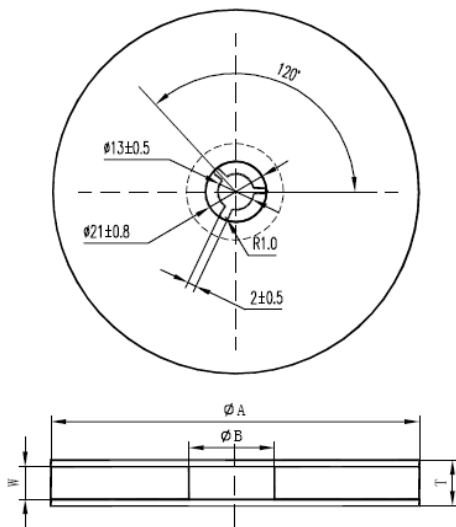
RoHS/RoHS II Compliant  
Pb in ceramic, exemption (7c-I)



3.7 x 3.1 mm

## TAPE & REEL:

**T: 1000pcs/Reel**



Reel Quantity	ΦA	ΦB	W	T	Pieces per reel	Carrier tape size
1000 (T)	180±3	60 min.	12.4 min	19.4 max	1000 typ.	12

Dimension: mm

**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.

## 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 1 year 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-

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS  
ISO9001:2008  
CERTIFIED



Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale  
30332 Esperanza, Rancho Santa Margarita, California 92688  
tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)

Revised: 05.07.13