

Miniature Ceramic Resonator



AWSCR-CVHB

3.7 x 3.1 x 1.0 mm

RoHS/RoHS II Compliant

Pb in ceramic, exemption (7c-1)

This product is not Moisture Sensitive - MSL = 1

Features

- Industry standard footprint
- Low resonance impedance
- Built-in capacitance options
- Wide operating temperatures in extended industry range

Applications

- Metering systems
- Remote control
- Microprocessor
- Industrial control
- Electric appliances

Electrical Specifications

Parameters	Min	Typ.	Max	Units	Notes	
Oscillating Frequency (Fosc)	13.01		50.00	MHz		
Frequency Tolerance	-0.5		0.5	%		
Temperature Coefficient of Oscillation Frequency (%) max.	-0.2		0.2	%	Oscillator Frequency drift (-40 °C to +125 °C)	
Resonant Impedance (Ro)			60	Ω	13.01 – 15.99 MHz	
			40		16.00 – 50.00 MHz	
Standard Built-in Capacitance (C1=C2)		10		pF	13.01-15.99 MHz (Tol 1pF ± 20 %)	
		22			16.00 MHz (Tol 1pF ± 20 %)	
	Other options : 5, 10					16.01 - 25.99 MHz (Tol 1pF ± 20 %)
		10			26.00 - 50.00 MHz (Tol 1pF ± 20 %)	
	Other options : 5, 15					
		5				
Other options : 10, 15						
Withstanding Voltage			50	V	DC, 1 min.	
Voltage Rating	(1) D.C. Voltage		6	V		
	(2) A.C. Voltage		15	Vp-p		
Insulation Resistance (Ri)	500			MΩ	10V, 1 min.	
Operation Temperature	-40		+125	°C		
Storage Temperature	-55		+125	°C		
Aging Rate max (Fosc) * For 10 years	-0.3		0.3	%	From Initial value	

* Components shall be left in a chamber of +85 °C ± 2 °C for 1000 hours, then measured after leaving in natural condition for 1 hour.

Miniature Ceramic Resonator



AWSCR-CVHB

3.7 x 3.1 x 1.0 mm

RoHS/RoHS II Compliant

Pb in ceramic, exemption (7c-1)

This product is not Moisture Sensitive - MSL = 1

Options and Part Identification

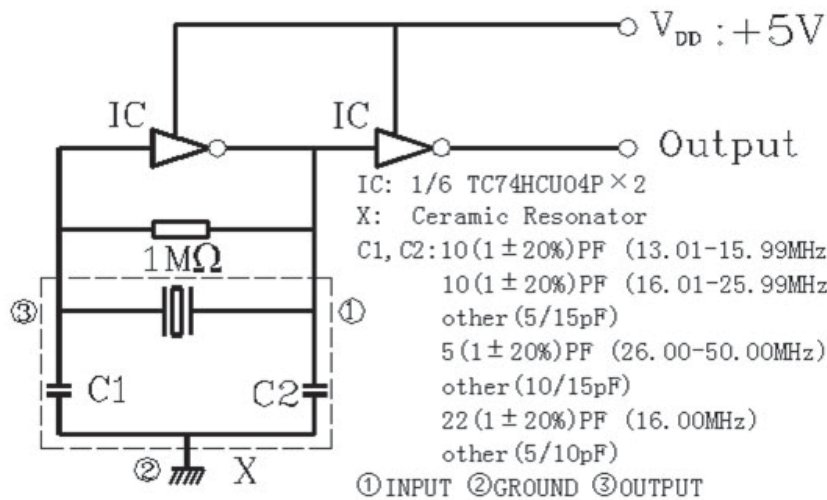
AWSCR - □□.□□ CVHB - C□□ - □

Frequency (MHz)	Size (mm)	Frequency Band	Operating Temperature	Built-in Cap	Packaging
13.01 - 50.00	CV = 3.7 x 3.1	H = Higher Band	B = -40 °C to 125 °C	C = XXpF *	T = 1000 pcs/reel

* Please refer to Electrical Specifications table

Test Circuit and Conditions

Parts shall be tested under the condition (Temp: 20 °C ± 15 °C, Humidity: 65 ± 20 % R.H.) unless the standard condition (Temp: 25 °C ± 2 °C, Humidity: 65 ± 5 % R.H.) is regulated to measure.



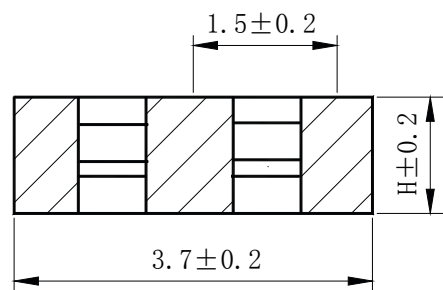
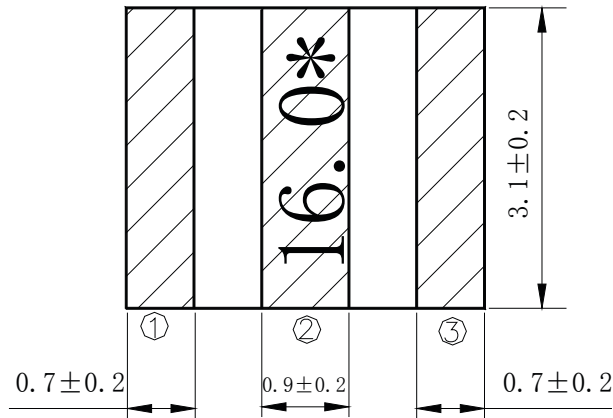
Miniature Ceramic Resonator



AWSCR-CVHB

3.7 x 3.1 x 1.0 mm
RoHS/RoHS II Compliant
Pb in ceramic, exemption (7c-I)
This product is not Moisture Sensitive - MSL = 1

Outline Dimensions



- ① Input
- ② Ground
- ③ Output
- H: 1.2-1.6
- *: EIAJ MONTHLY CODE

Unit: mm

Miniature Ceramic Resonator



AWSCR-CVHB

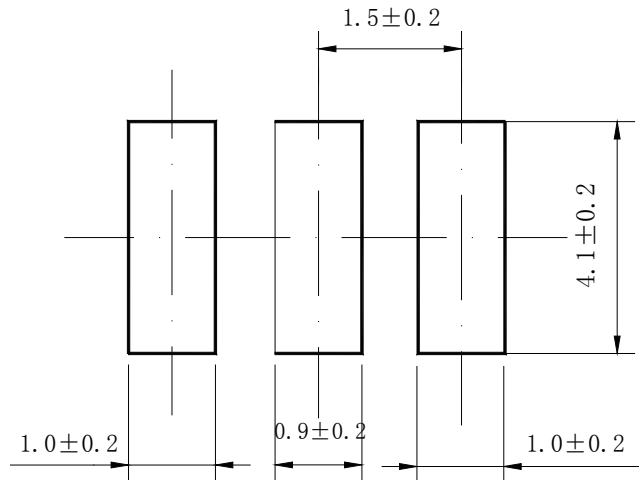
3.7 x 3.1 x 1.0 mm

RoHS/RoHS II Compliant

Pb in ceramic, exemption (7c-I)

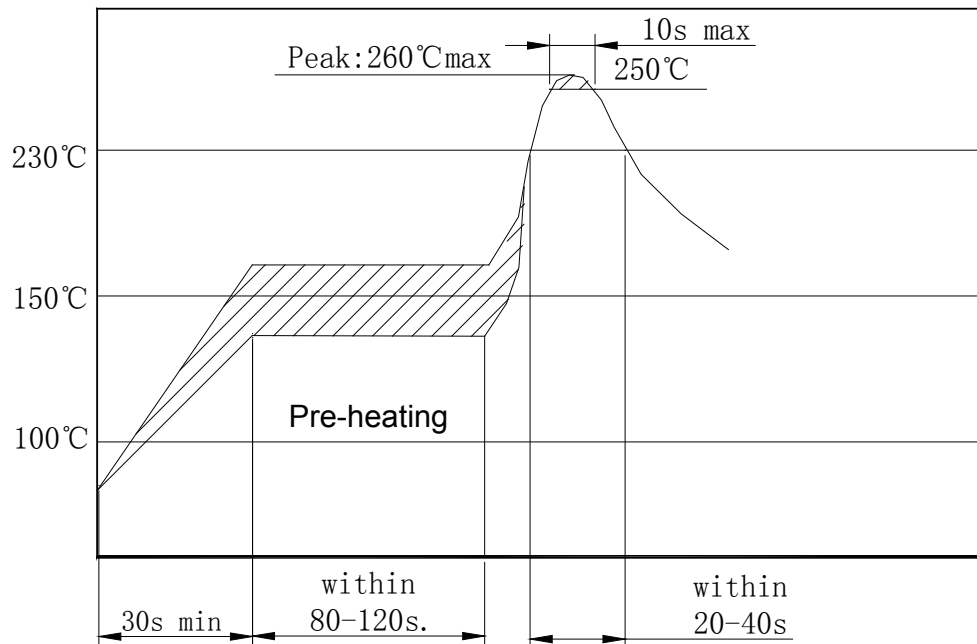
This product is not Moisture Sensitive - MSL = 1

Recommended Land Pattern



Unit: mm

Recommended Reflow Profile



Miniature Ceramic Resonator



AWSCR-CVHB

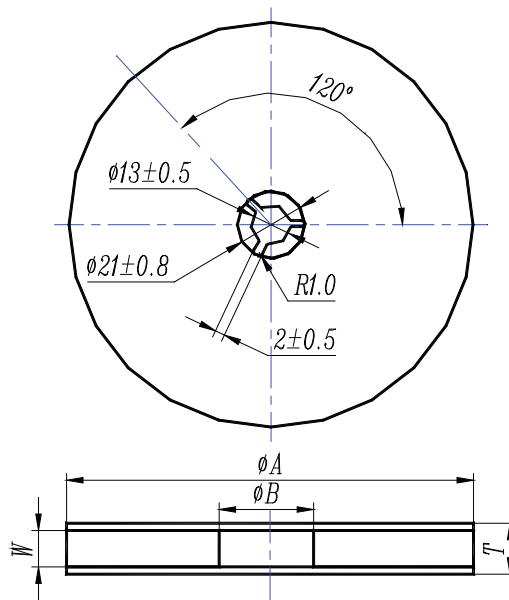
3.7 x 3.1 x 1.0 mm
RoHS/RoHS II Compliant

Pb in ceramic, exemption (7c-1)
This product is not Moisture Sensitive - MSL = 1

Packaging

T: 1000 pcs/reel

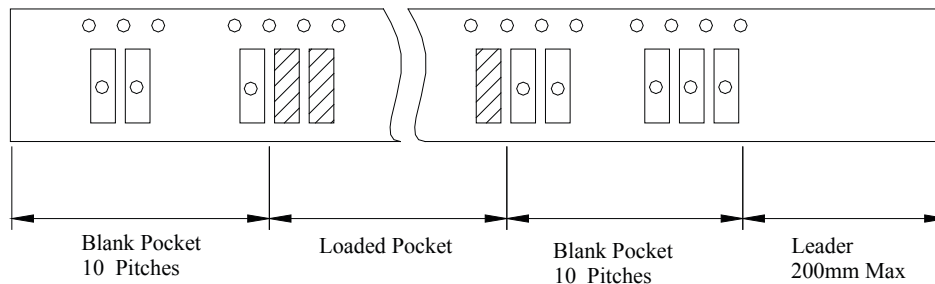
Reel Dimension



Unit: mm

ϕA	ϕB	W	T	Pieces per reel	Carrier tape size
180 ± 3	60 min	12.4 min	19.4 max	1000 typ.	12

Packaging Sketch



Miniature Ceramic Resonator



AWSCR-CVHB

3.7 x 3.1 x 1.0 mm

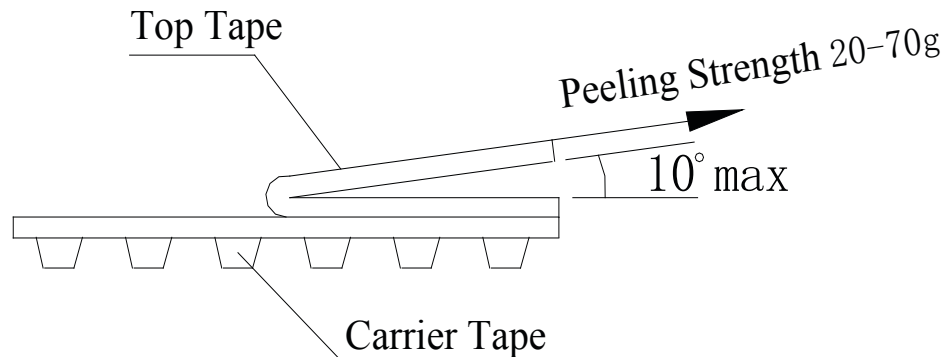
RoHS/RoHS II Compliant

Pb in ceramic, exemption (7c-1)

This product is not Moisture Sensitive - MSL = 1

Packaging

Test Condition for Peel-Off Strength



Caution

1. Don't apply excess mechanical stress to the component and terminals at soldering. Do not use this product with bend.
2. Do not clean or wash the component for it is not hermetically sealed.
3. Do not use strong acidity flux, more than 0.2 wt% chlorine content, in flow soldering.
4. Don't be close to fire.
5. This specification mentions the quality of the component as a single unit. Please ensure the component is thoroughly evaluated in your application circuit.
6. Expiry date (Shelf life) of the products is 12 months after delivery under the conditions of a sealed and an unopened package. Please use the products within 12 months after delivery. If you store the products for a long time (more than 12 months), use carefully because the products may be degraded in the solderability or rusty. Please confirm solderability and characteristics for the products regularly.

ATTENTION: Abracon LLC'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-dependent 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 LLC is required. Please contact Abracon LLC for more information.



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 04-17-19

ABRACON IS
ISO9001-2015
CERTIFIED