3.7 x 3.1mm Industrial Grade Built-in Capacitance Ceramic Resonator



3.7 x 3.1 x 1.0mm

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

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

STANDARD SPECIFICATIONS:

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
				60		13.01 MHz – 15.99 MHz
				40		16.00 MHz – 20.00 MHz
				40		20.01 MHz – 25.99 MHz
				40		26.00 MHz – 60.00 MHz
Standard Built-in Capacitance (C1=C2)		22 – 20%	22	22 + 20%	pF	8.00 MHz – 13.00 MHz
		22 – 20%	22	22 + 20%		13.01 MHz – 15.99 MHz
		22 – 20%	22	22 + 20%		16.00 MHz – 20.00 MHz
		10 – 20%	10	10 + 20%		20.01 MHz – 25.99 MHz
		5 – 20%	5	5 + 20%		26.00 MHz – 60.00 MHz
Frequency Tolerance @25 ºC		-0.5		0.5	%	
Frequency Stability @ -25ºC to +85ºC		-0.4		0.4	%	8.00 MHz – 13.00 MHz
		-0.3		0.3		13.01 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	ºC	
Storage Temperature		-55		85	ºC	
Aging Rate (Fosc) (10 years)		-0.3		0.3	%	

OPTIONS AND PART IDENTIFICATION:

AWSCR – X.XXCV - C□□ - □

Frequency	Load Capacitance	Packaging
Frequency in MHz	Contact ABRACON for Built-in Capacitance options	T: 1000pcs/Reel

3.7 x 3.1mm Industrial Grade Built-in Capacitance Ceramic Resonator



3.7 x 3.1 x 1.0mm

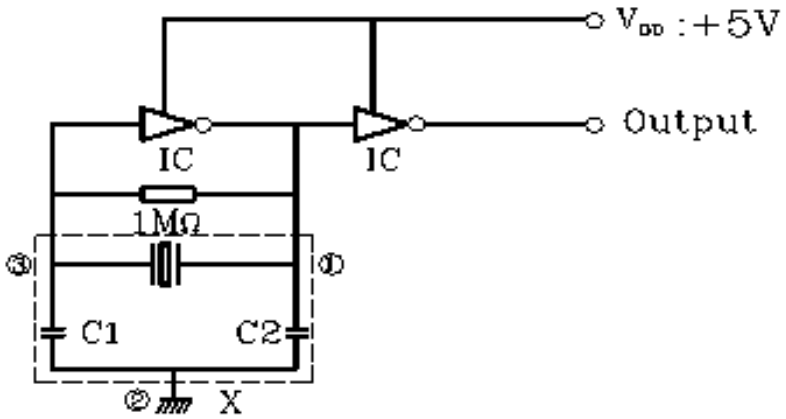
AWSCR-CV

Pb in ceramic, exemption (7c-I)

RoHS/RoHS II compliant

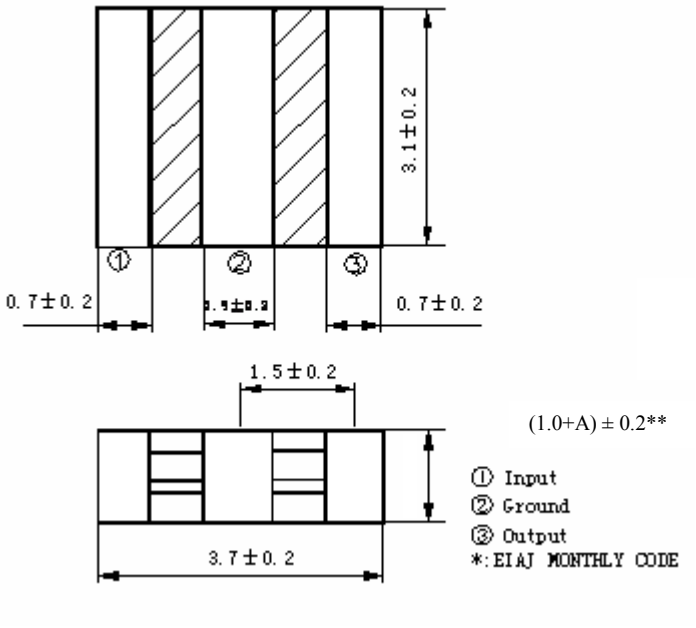
TEST CIRCUIT:

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



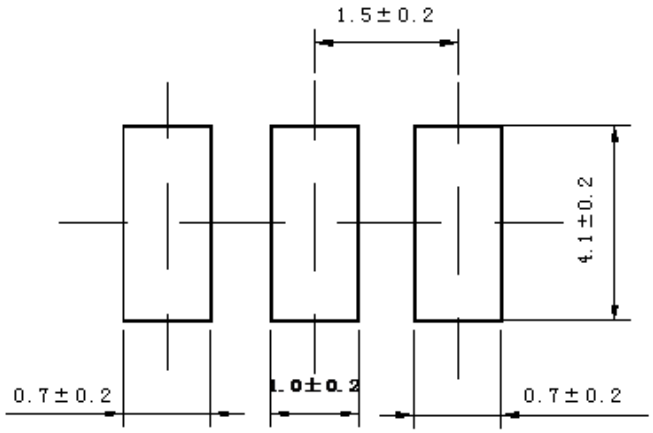
X: Ceramic Resonator
1. Input
2. Ground
3. Output

OUTLINE DRAWING:



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

Recommended Land Pattern



Dimension: mm

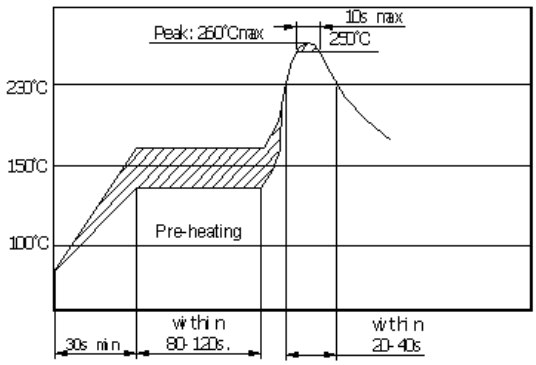
3.7 x 3.1mm Industrial Grade Built-in Capacitance Ceramic Resonator



3.7 x 3.1 x 1.0mm

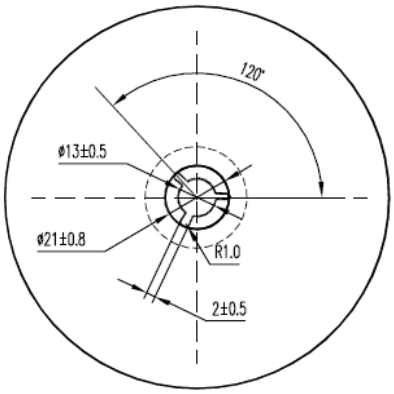
AWSCR-CV **Pb in ceramic, exemption (7c-I)** **RoHS/RoHS II compliant**

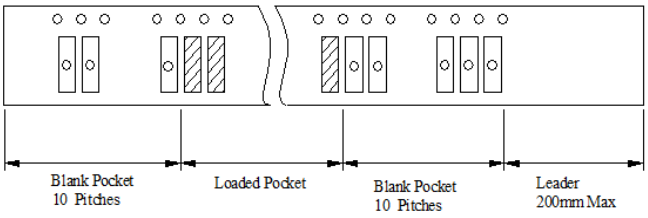
SUGGESTED REFLOW:

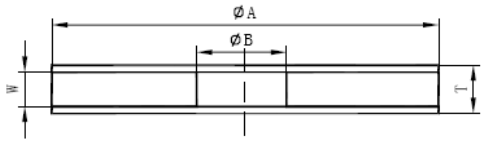


TAPE & REEL:

Packaging:
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

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.

Dimensions: 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.

30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com