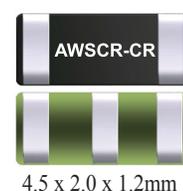


# 4.5 x 2.0 x 1.2 mm INDUSTRIAL GRADE BUILT-IN CAPACITANCE CERAMIC RESONATOR



**AWSCR-CR**

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

**RoHS/RoHS II Compliant**

Pb in ceramic, exemption (7c-I)

4.5 x 2.0 x 1.2mm

## FEATURES:

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

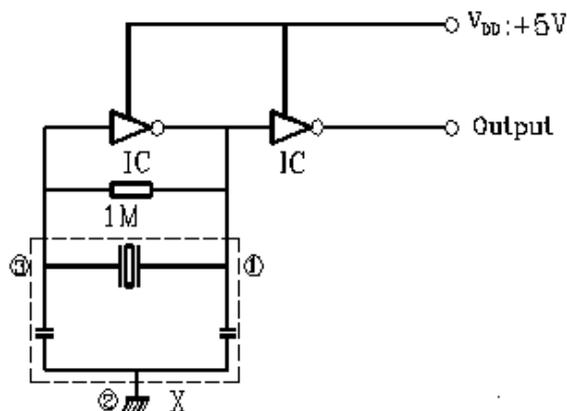
## APPLICATIONS:

- Remote controls, Microprocessor clocks, DVD & CD-ROMs, Electric appliances
- Consumer electronics

## STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	4.00		8.00	MHz	
Resonant Impedance (Ro)			40	$\Omega$	
Built-In Load Capacitance (C1=C2)	12	15	18	pF	
Frequency Tolerance @25 °C	-0.5		+0.5	%	
Frequency Stability (-25°C to +85°C)	-0.3		+0.3	%	
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			M $\Omega$	10V, 1min
Operation Temperature	-25		+85	°C	
Storage Temperature	-55		+85	°C	
Aging Rate (Fosc) (10 years)	-0.2		+0.2	%	

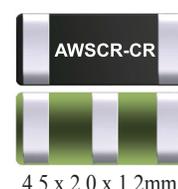
## TEST CIRCUIT:



X: Ceramic Resonator  
 C1=C2: 15pF  $\pm$ 20%  
 1: INPUT 2: GROUND 3: OUTPUT

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

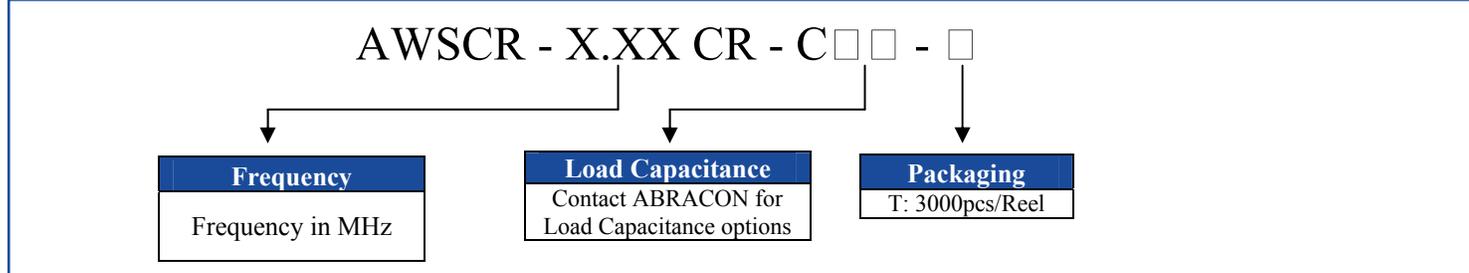
# 4.5 x 2.0 x 1.2 mm INDUSTRIAL GRADE BUILT-IN CAPACITANCE CERAMIC RESONATOR



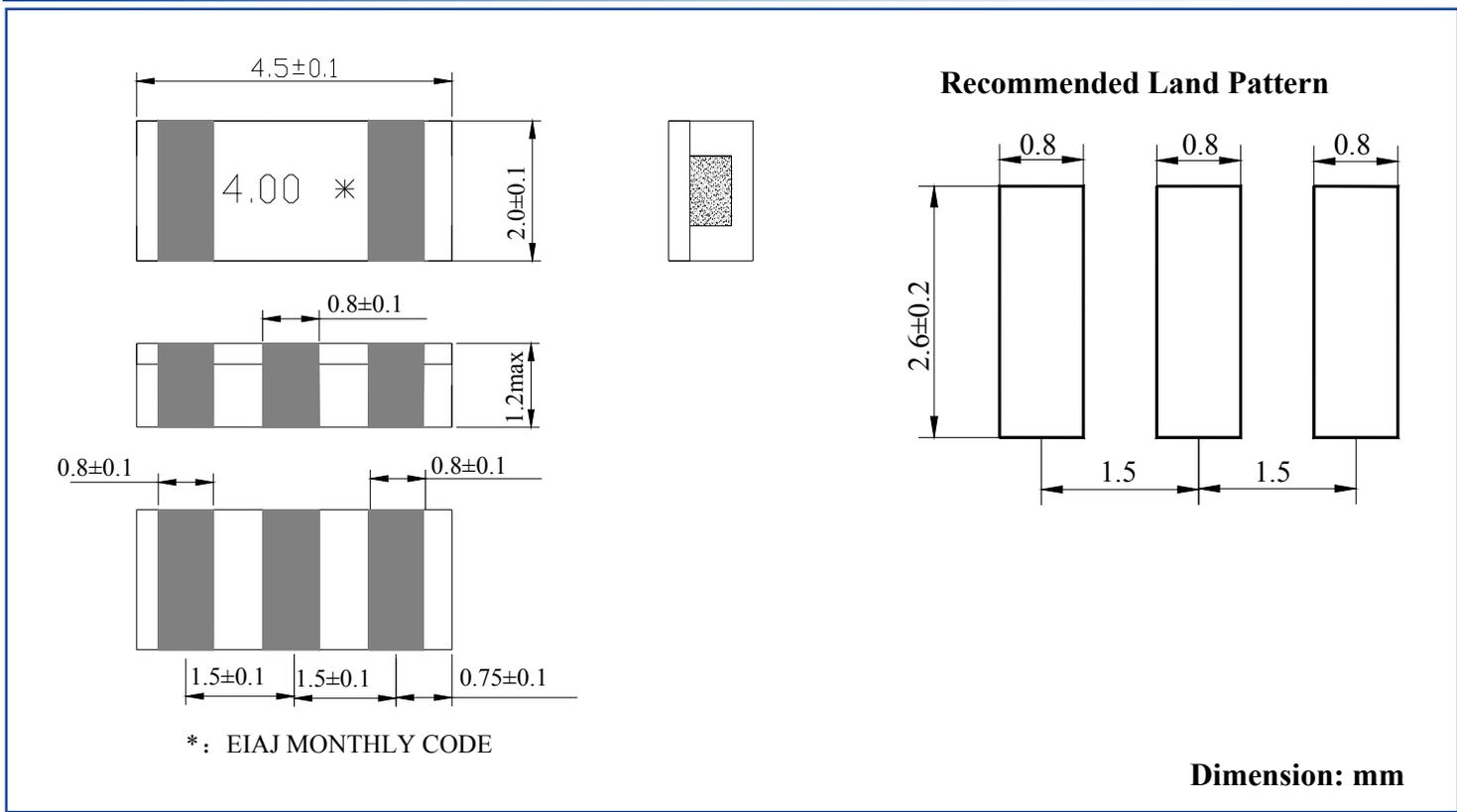
**AWSCR-CR**

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

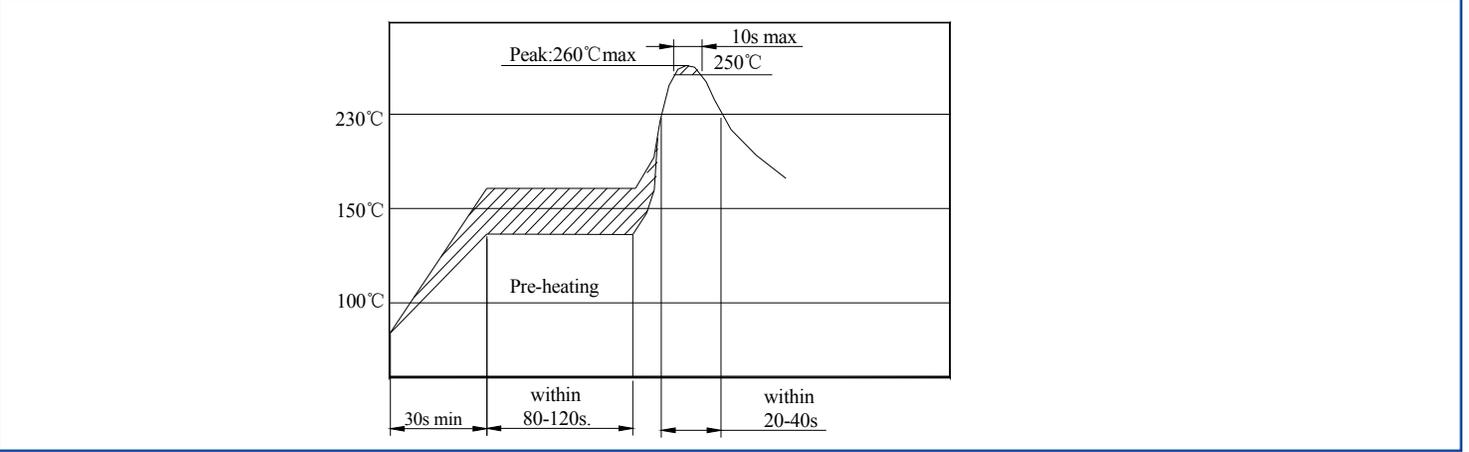
## PART IDENTIFICATION:



## OUTLINE DIMENSION:



## REFLOW PROFILE:

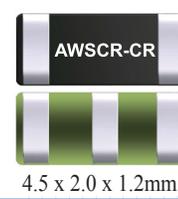


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# 4.5 x 2.0 x 1.2 mm INDUSTRIAL GRADE BUILT-IN CAPACITANCE CERAMIC RESONATOR

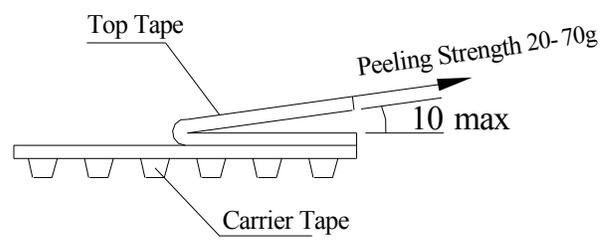
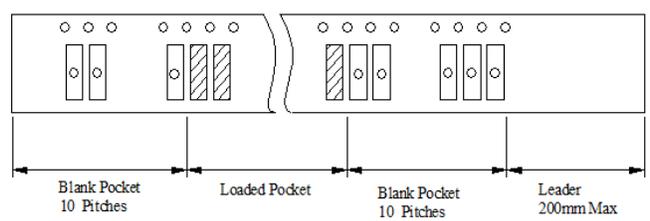
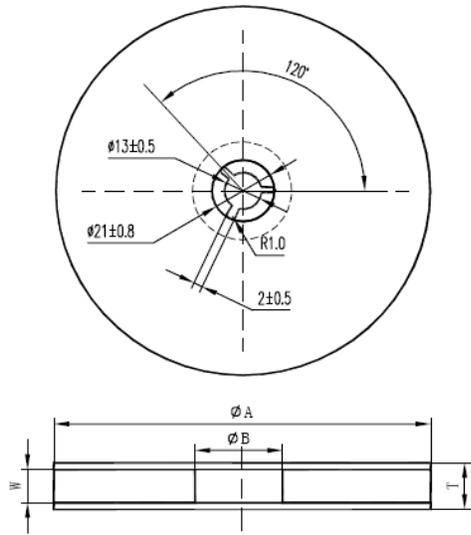


**AWSCR-CR**

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

## TAPE & REEL:

**T: 3000pcs/Reel**



ΦA	ΦB	W	T	Pieces per reel	Carrier tape size
180±3	60 min.	12.4 min	19.4 max	3000 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.

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Application. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where componen 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.

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