



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!



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# 4.7 x 4.1mm BUILT-IN CAPACITANCE CERAMIC RESONATOR

AWSCR-MTD

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

**RoHS**  
Compliant



4.7 x 4.1mm

## FEATURES:

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

## APPLICATIONS:

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

## STANDARD SPECIFICATIONS:

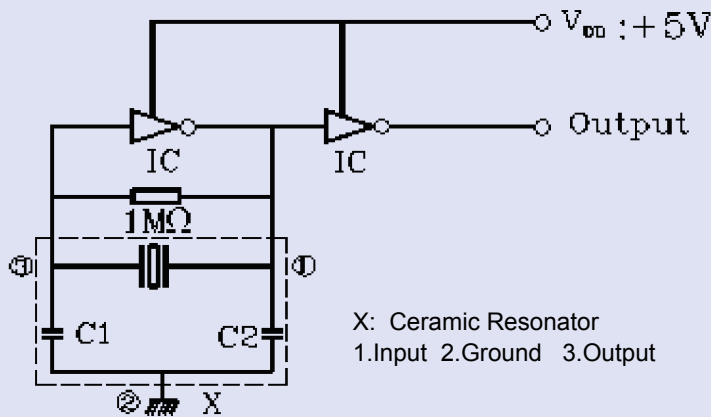
Item	Requirement
Frequency Range	6.00MHz to 50.00MHz
Resonant Impedance	See Table 2.1
Frequency Tolerance	± 0.5%
Frequency Stability max. (-25°C to +85°C)	±0.4% (6.00 MHz~13.00 MHz)* ±0.3% (13.01 MHz~50.00 MHz)
Withstanding Voltage (V)	50 (DC , 1 min)
Rating Voltage (1) D.C.Voltage (2) A.C. Voltage	6 V.D.C. max 15 Vp-p. max
Built-in Capacitance	See Table 2.1
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. (10 years)

Table 2.1

Frequency Range (MHz)	Resonant Impedance (Ro)(Ω)	Standard Built-in Capacitance C1=C2 (pF)
6.00 MHz - 13.00 MHz	30	22pF ±20%
13.01 MHz - 16.00 MHz	40	22pF ±20%
16.01 MHz - 25.99 MHz	40	10pF ±20%
26.00 MHz - 50.00 MHz	40	5pF ±20%

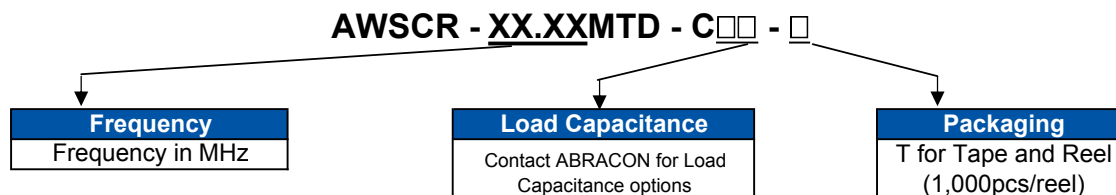
\* Please contact ABRACON for tighter stability and/or wider temperature range

## 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

## OPTIONS AND PART IDENTIFICATION:



# 4.7 x 4.1mm BUILT-IN CAPACITANCE CERAMIC RESONATOR

AWSCR-MTD

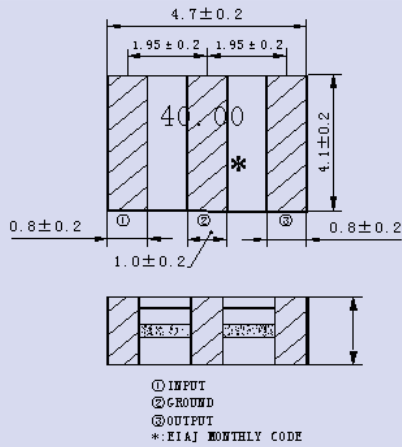
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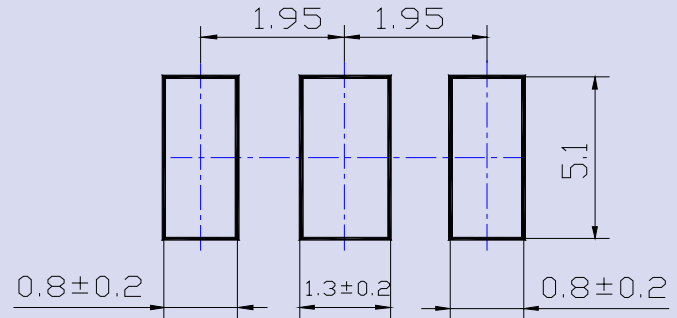


4.7 x 4.1mm

## OUTLINE DRAWING:

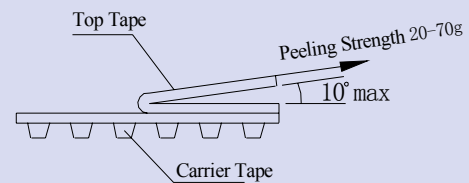
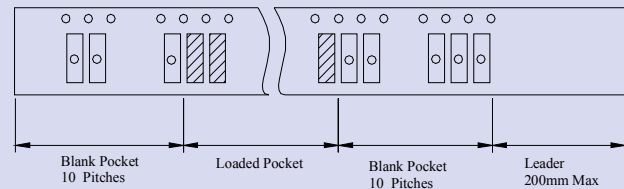
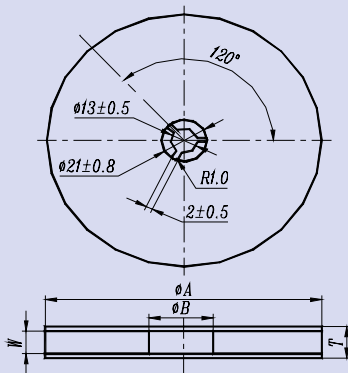


## RECOMMENDED LAND PATTERN



Dimension : mm

## TAPE & REEL: [1,000pcs/reel]



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

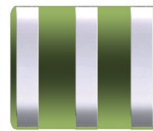
Dimension : mm

# 4.7 x 4.1mm BUILT-IN CAPACITANCE CERAMIC RESONATOR

AWSCR-MTD

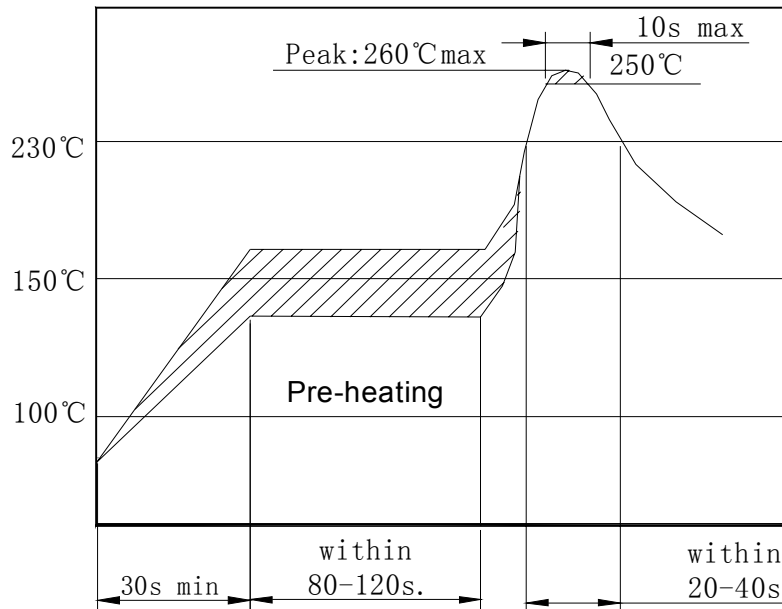
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**RoHS**  
Compliant



4.7 x 4.1mm

## 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.

**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



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