

# INDUSTRIAL GRADE BUILT-IN CAPACITANCE CERAMIC RESONATOR

AWSCR-MV

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

RoHS  
Compliant



3.7 x 3.1 x 1.2 mm

## FEATURES:

- Low resonant impedance
- High stability type
- Excellent environmental resistance
- Reflow capable
- Industrial grade
- Built-in load capacitance

## APPLICATIONS:

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

## ELECTRICAL CHARACTERISTICS:

Item	Requirement
Frequency Range	8.00MHz to 50.00 MHz
Resonant Impedance	40Ω max.
Frequency Tolerance and stability	See Table 2.1
Withstanding Voltage	50 (DC , 1 min)
Rating Voltage	
(1) D.C.Voltage	10 V.D.C. max
(2) A.C. Voltage	15 Vp-p. max
Load Capacitance	see Table 2.2 for standard see Option Code for options
Insulation Resistance	500MΩ min. (10V, 1min)
Operating Temperature	See Table 2.1
Storage Temperature	-40°C to +125°C
Aging Rate (Fosc)	±0.3% max. (10 years)

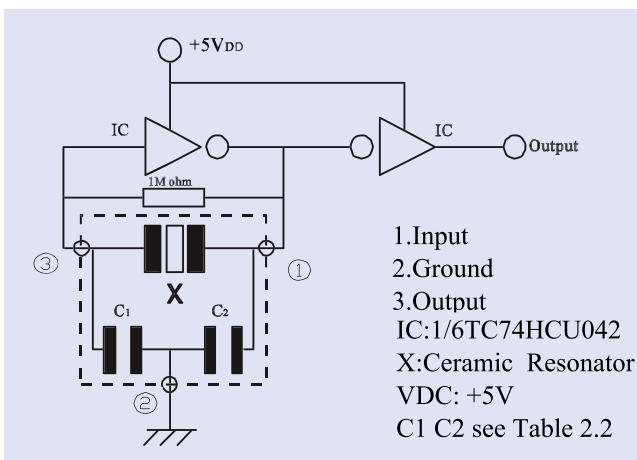
TABLE 2.1

Part Number (XX.XX denotes freq. in MHz)	Frequency Tolerance at 25°C	Frequency Stability at Operating Temp.	Operating Temperature	Resonant Impedance (Ω) max
AWSCR-XX.XXMVS 8.00 MHz - 13.00 MHz 13.01 MHz - 50.00 MHz	±0.3%	± 0.3%	-20° to +80°C	30 40
AWSCR-XX.XXMVD 8.00 MHz - 13.00 MHz 13.01 MHz - 50.00 MHz	±0.3%	± 0.5%	-40° to +85°C	30 40
AWSCR-XX.XXMVA 8.00 MHz - 13.00 MHz 13.01 MHz - 50.00 MHz	±0.3%	± 0.7%	-40° to +125°C	30 40

TABLE 2.2

Freq (MHz)	Cl=C2 pf (±20%)
8.00~13.00	20
13.01~16.00	20
16.01~40.00	10
40.01~50.00	5

## TEST CIRCUIT:



1.Input  
2.Ground  
3.Output  
IC:1/6TC74HCU042  
X:Ceramic Resonator  
VDC: +5V  
C1 C2 see Table 2.2

## OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

AWSCR - Frequency- MV - C -

### Frequency

XX.XXMHz

### Packaging

T for Tape and Reel  
(1,000pcs/reel)

### Operating Temperature

S	-25° to +85°C
D	-40° to +85°C
A	-40° to +125°C

### Load Capacitance

ex. 5pF-20pF

Contact ABRACON for Load  
Capacitance options



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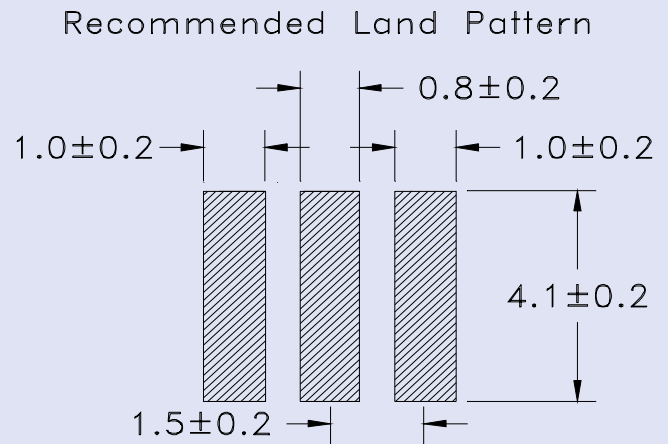
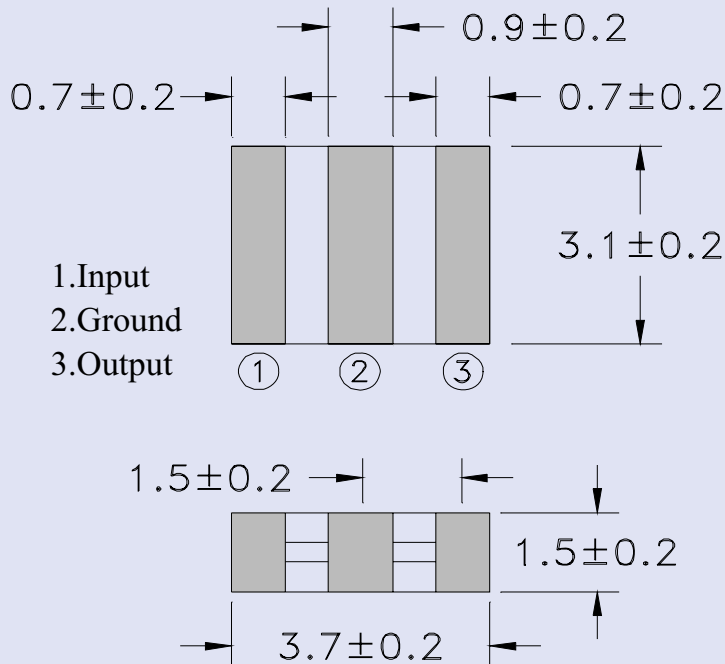
**RoHS**  
Compliant

AWSCR



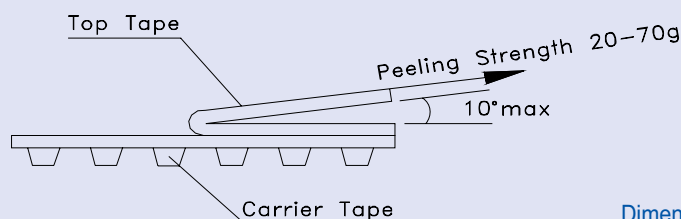
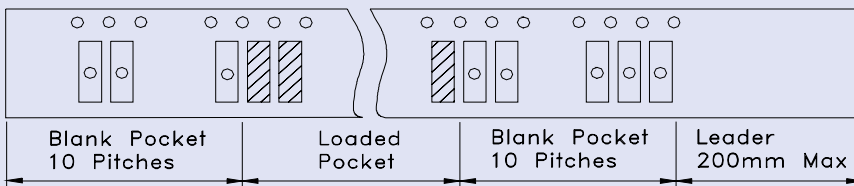
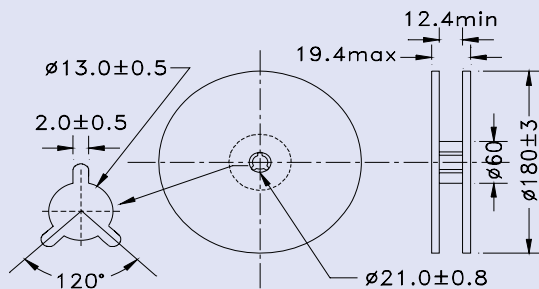
3.7 x 3.1 x 1.2 mm

## ➤ OUTLINE DRAWING:



Dimensions: mm

## ➤ TAPE & REEL: T = Tape and reel 1,000pcs/reel



Dimensions: mm

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED



**ABRACON**  
CORPORATION

Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale **Revised: 08.20.07**

30332 Esperanza, Rancho Santa Margarita, California 92688

tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)

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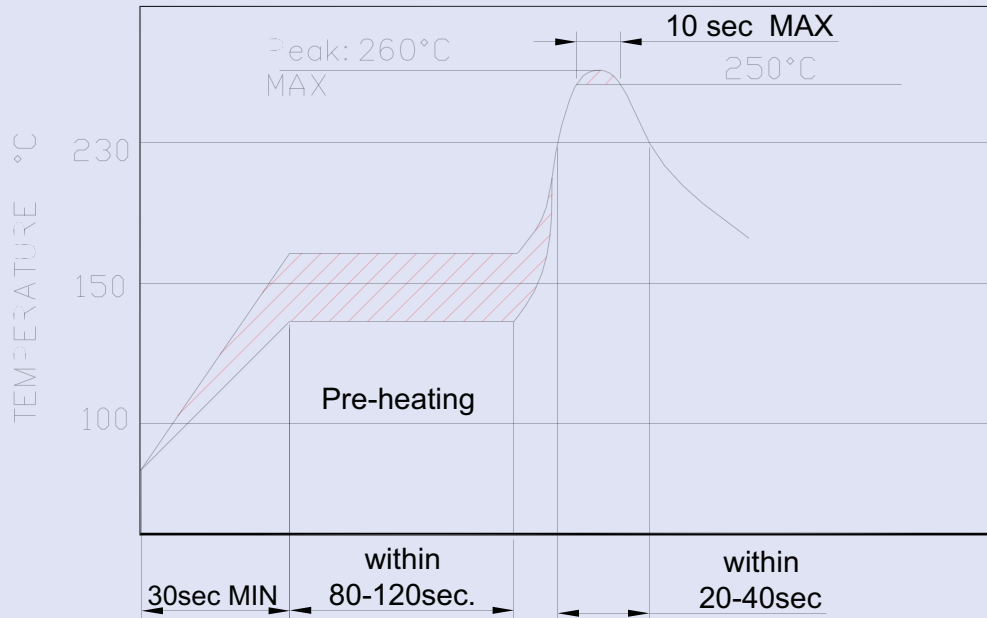


3.7 x 3.1 x 1.2 mm

## SUGGESTED REFLOW PROFILE:

### ROHS reflow profile high temperature

(applies to parts manufactured after 2/1/2007 -lot# later than 07 01 xxx)



### ROHS reflow profile

(applies to parts manufactured before 2/1/2007 -lot# before than 07 01 xxx)

