

# INDUSTRIAL GRADE BUILT-IN CAPACITANCE CERAMIC RESONATOR

AWSCR



4.7 x 4.1 x 1.2 mm

AWSCR-MT

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

RoHS  
Compliant

## FEATURES:

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

## APPLICATIONS:

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

## ELECTRICAL CHARACTERISTICS:

Item	Requirement
Frequency Range	8.00MHz to 50.00MHz
Resonant Impedance	See Table 2.1
Frequency Tolerance and stability	See Table 2.1
Withstanding Voltage	50 (DC , 1 min)
Rating Voltage	
(1) D.C. Voltage	6 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)
Operation Temperature	See Table 2.1
Storage Temperature	-55°C to +85°C
Aging Rate (Fosc)	±0.3% max. (10 years)

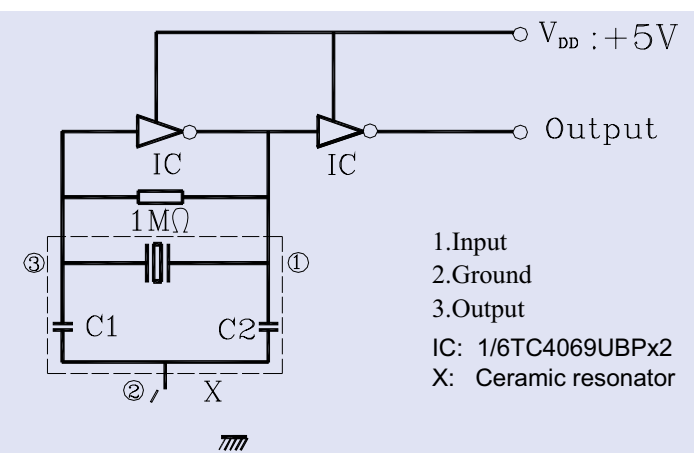
TABLE 2.2

Freq (MHz)	Cl=C2 pf (±20%)
8.00~13.00	22
13.01~16.00	22
16.01~40.00	15
40.01~50.00	5

TABLE 2.1

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

## TEST CIRCUIT:



## OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

AWSCR - Frequency- MT  - 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

Parts shall be tested under the condition (Temp.: 20 ±3°C, Humidity: 65±20% R.H.) unless the standard condition; (Temp.: 25±3°C, Humidity: 65±10% R.H.) is regulated to measure.

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**

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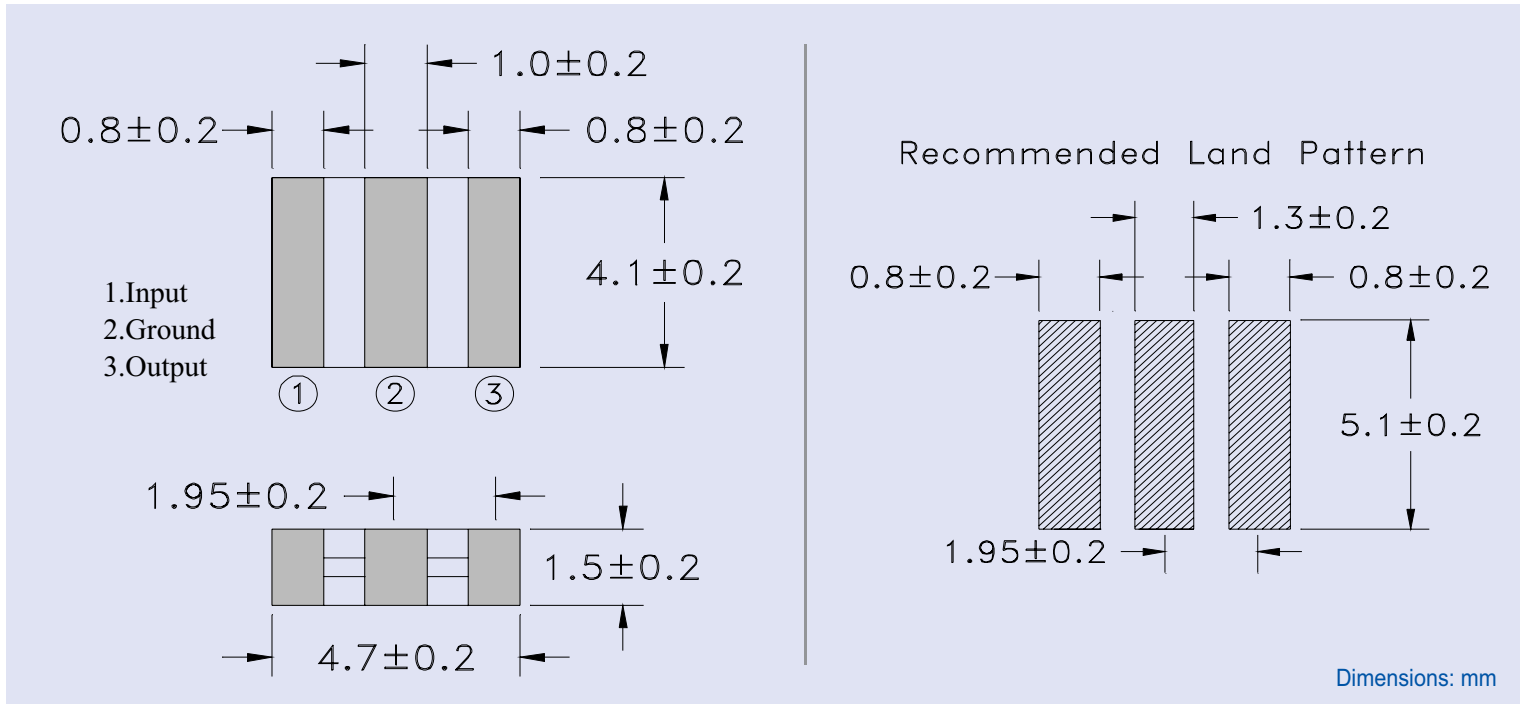
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AWSCR-MT

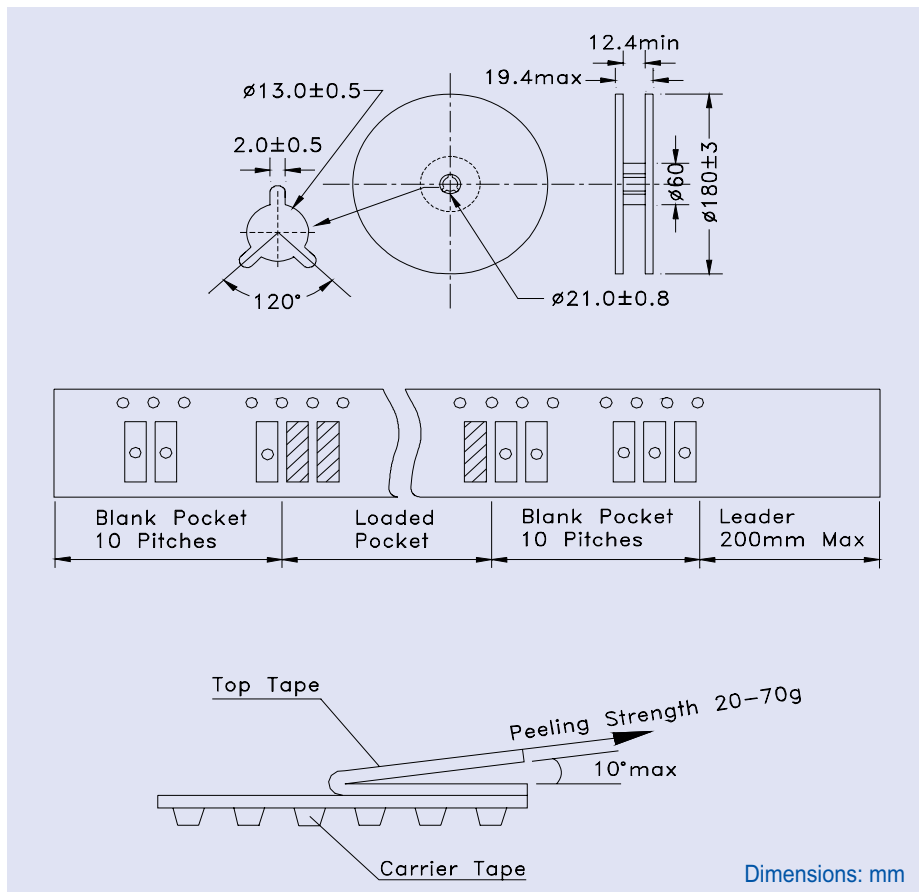
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## OUTLINE DRAWING:



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



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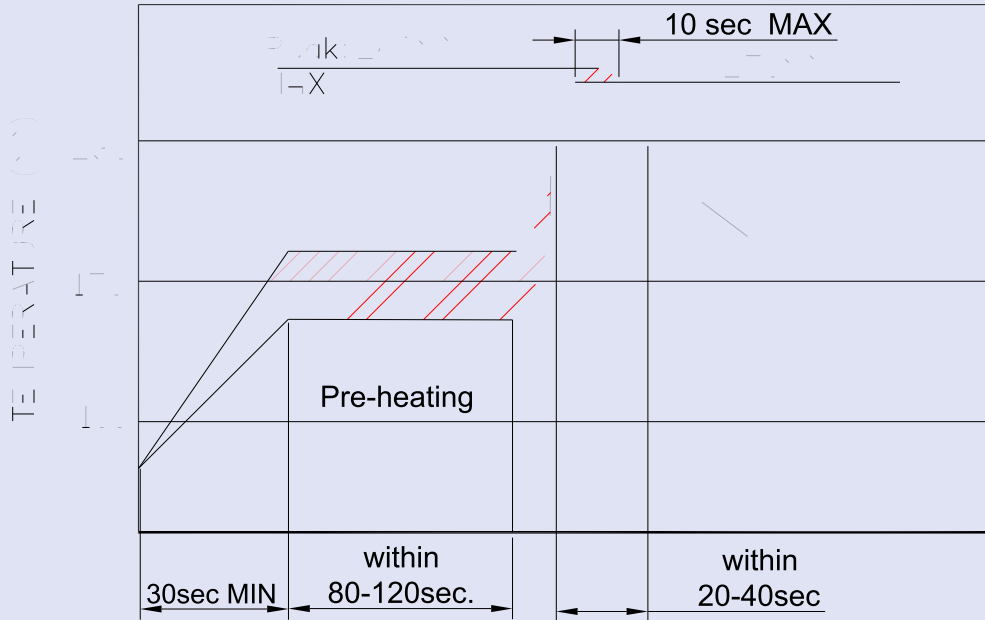
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## SUGGESTED REFLOW PROFILE:

**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)

