# LEADED BUILT-IN CAPACITANCE CERAMIC RESONATOR

**AWCR-MD** 

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





#### > FEATURES:

- Built-in capacitors save space & components.
- · Low cost timing solution.
- Small size, Light weight

### > APPLICATIONS:

- Microprocessor clocks.
- Industrial controllers.
- Electric appliances.
- General timing.
- · Remote controls.

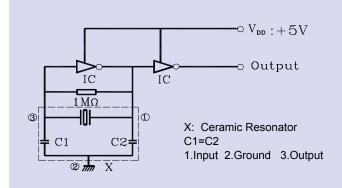
## **ELECTRICAL CHARACTERISTICS:**

Item	Requirement
Fraguency Bango	2.00MHz to 3.99MHz
Frequency Range	8.01MHz to 50.00MHz
Resonant Impedance	See Table 2.1
Frequency Tolerance	± 0.5%
Frequency Stability	±0.3% max. (-25°C to +85°C)*
Withstanding Voltage	50V (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 2.1
Insulation Resistance	100MΩ min. (DC 10V)
Operation Temperature	-25°C to +85°C*
Storage Temperature	-55°C to +85°C
Aging Rate (Fosc)	±0.3% max. (From initial value)

Table 2.1		
Frequency range	Resonant Impedance	Standard Load Capacitance
(MHz)	(Ro)( $\Omega$ ) max	C1=C2 (pF)
2.00 MHz - 2.99 MHz	80	
3.00 MHz - 3.49 MHz	50	30pF± 20%
3.50 MHz - 3.99 MHz	30	
8.01 MHz - 13.00 MHz	30	22pF± 20%
13.01 MHz - 20.00 MHz	30	30pF± 20%
20.01 MHz - 25.99 MHz	30	15pF± 20%
26.00 MHz - 50.00 MHz	30	5pF± 20%

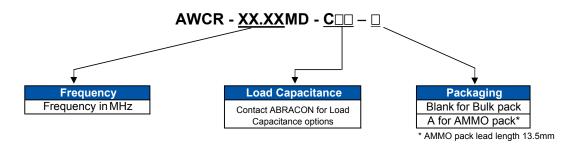
<sup>\*</sup> Please contact ABRACON for tighter stability and/or wider temperature range

## **TEST CONDITION AND 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 & PART IDENTIFICATION:**





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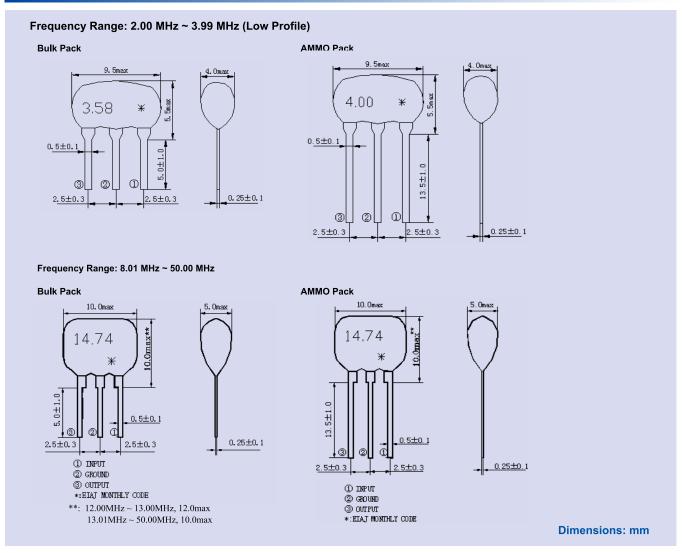


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#### > OUTLINE DRAWING:



### **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-dependent application. Contact Abracon Corporation prior to using this product when in doubt.



