

# 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:

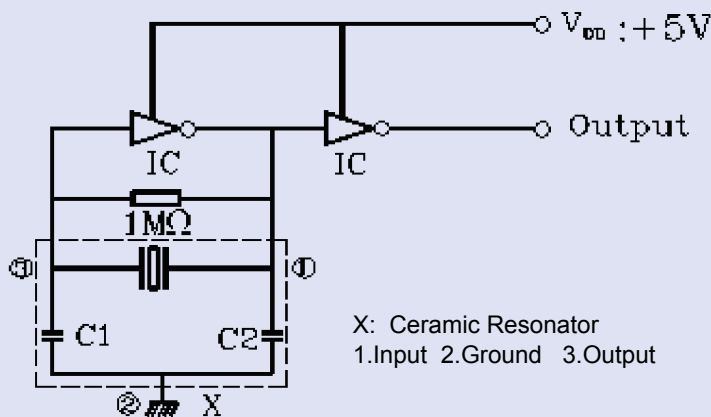
| Item  | Requirement  |
|---|--|
| Frequency Range                                 | 6.00MHz to 50.00MHz  |
| Resonant Impedance                              | See Table 2.1  |
| Frequency Tolerance                             | ± 0.5%   |
| Frequency Stability max. (-25°C to +85°C)       | ±0.4% (6.00 MHz~13.00 MHz)*<br>±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<br>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:



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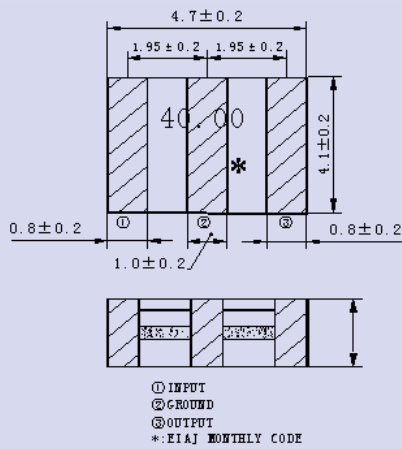
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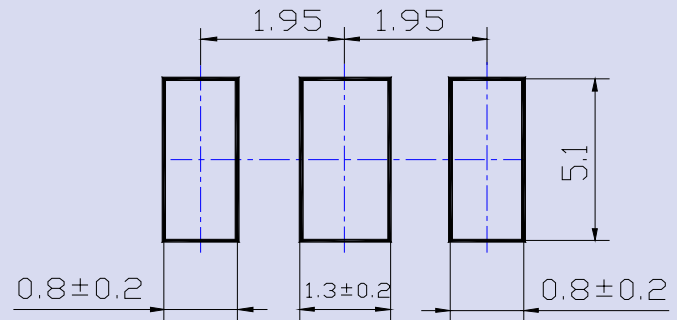


4.7 x 4.1mm

## OUTLINE DRAWING:

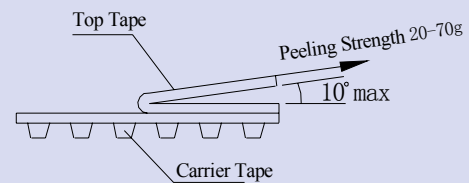
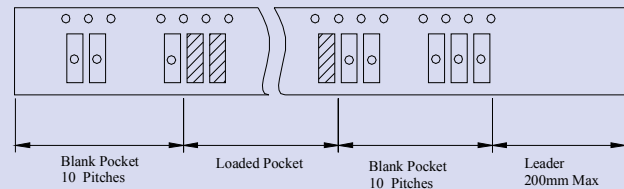
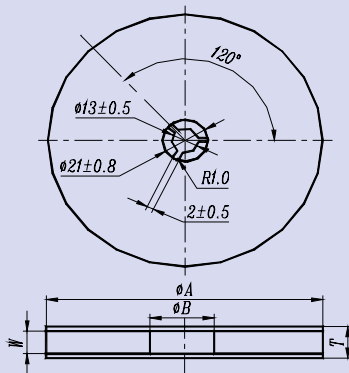


## RECOMMENDED LAND PATTERN



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

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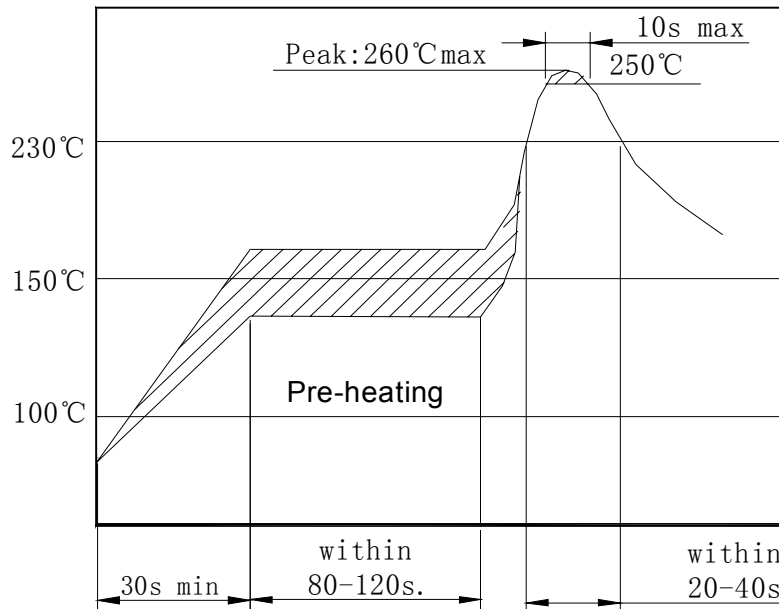
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4.7 x 4.1mm

## 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.

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- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
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- Экспресс доставка в любую точку России;
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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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