

# 3.7 x 3.1mm BUILT-IN CAPACITANCE CERAMIC RESONATOR



**AWSCR-CV**

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

**RoHS**  
Compliant

3.7 x 3.1mm

## FEATURES:

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

## APPLICATIONS:

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

## STANDARD SPECIFICATIONS:

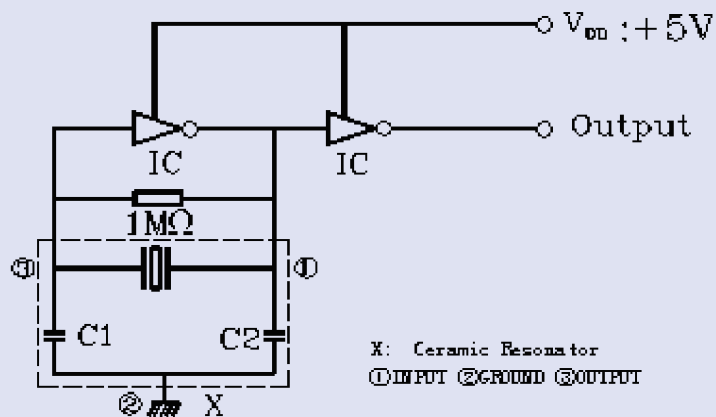
| Item                               | Requirement   |
|------------------------------------|---|
| Frequency Range                    | 8.00MHz to 50.00 MHz  |
| Resonant Impedance                 | See Table 1   |
| Frequency Tolerance                | ± 0.5% ( at 25°C)   |
| Frequency stability (-25°C~+85°C)* | ±0.4% (8.00 MHz~ 13.00 MHz)<br>±0.3% (13.01 MHz~ 50.00 MHz) |
| Withstanding Voltage (V)           | 50 (DC , 1 min)   |
| Rating Voltage                     | 6 V DC max<br>15 Vp-p. max                                  |
| (1) D.C.Voltage                    |   |
| (2) A.C. Voltage                   |   |
| Built-in Capacitance               | See Table 1   |
| Insulation Resistance              | 100MΩ min. (10V, 1min)                                      |
| Operating Temperature              | -25°C to +85°C*   |
| Storage Temperature                | -55°C to +85°C  |
| Aging Rate (Fosc)                  | ±0.3% max. (10 years)                                       |

**Table 1**

| Frequency range (MHz) | Resonant Impedance (Ro)(Ω) max | Standard Built-in Capacitance C1=C2 (pF) |
|-----------------------|--------------------------------|--|
| 8.00 MHz - 13.00 MHz  | 30                             | 22pF± 20%                                |
| 13.01 MHz - 15.99 MHz | 60                             | 22pF± 20%                                |
| 16.00 MHz - 20.00 MHz | 40                             | 22pF± 20%                                |
| 20.00 MHz - 25.99 MHz | 40                             | 10pF± 20%                                |
| 26.00 MHz - 50.00 MHz | 40                             | 5pF± 20%                                 |

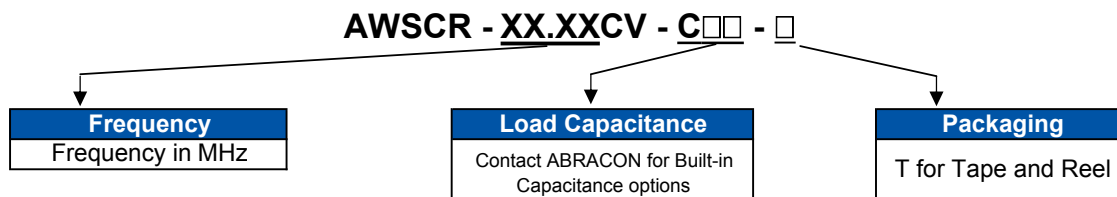
\* Please contact ABRACON for tighter stability and/or wider temperature range.

## TEST CIRCUIT:



## OPTIONS AND PART IDENTIFICATION:

[Left blank if standard]



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## OUTLINE DRAWING:

Dimensions: mm



\*\* A stands for the thickness of the ceramic element, which varies with the frequency

## RECOMMENDED LAND PATTERN



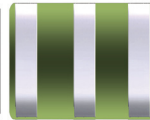
## TAPE & REEL: (1,000pcs/reel)



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

Dimensions: mm

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## REFLOW PROFILE:

Dimensions: mm



## 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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ABRACON IS  
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CERTIFIED



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С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

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- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
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- Входной контроль качества.
- Наличие сертификата ISO.

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- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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