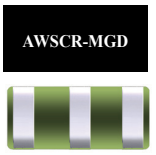
# 7.4 x 3.4 x 1.8mm BUILT-IN CAPACITANCE CERAMIC RESONATOR

AWSCR-MGD




AWSCR-MGD

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

RoHS Compliant

## FEATURES:

- Low resonant impedance
- Built-in load capacitors
- Suitable for RoHS compliant reflow
- Low cost solution for cost sensitive applications

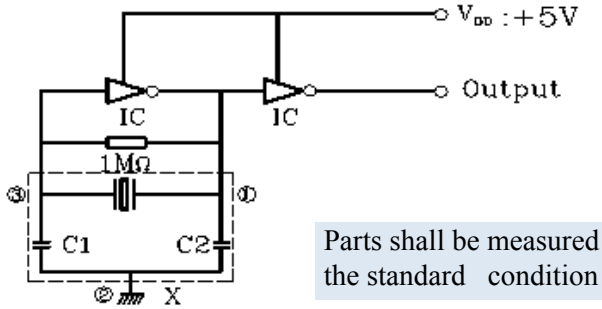
## APPLICATIONS:

- Remote controls, Microprocessor clocks, DVD & CD-ROMs, Electric appliances
- Consumer electronics

## STANDARD SPECIFICATIONS:

| Parameters | | Minimum | Typical | Maximum | Units | Notes |
|---|---|---|---|---|---|---|
| Frequency Range | | 1.84 | ----- | 8 | MHz | |
| Resonant Impedance (Ro) | | ----- | 100 | ----- | Ω | 1.84 MHz - 2.39 MHz |
| | | ----- | 100 | ----- | | 2.40 MHz - 2.99 MHz |
| | | ----- | 50 | ----- | | 3.00 MHz - 3.49 MHz |
| | | ----- | 30 | ----- | | 3.50 MHz - 8.00 MHz |
| Standard Built-in Capacitance (C1=C2) | | 33 – 20% | 33 | 33 + 20% | pF | 1.84 MHz - 2.39 MHz |
| | | 22 – 20% | 22 | 22 + 20% | | 2.40 MHz - 2.99 MHz |
| | | | | | | 3.00 MHz - 3.49 MHz |
| | | | | | | 3.50 MHz - 8.00 MHz |
| Frequency Tolerance | | -0.5 | ----- | 0.5 | % | |
| Frequency Stability | | -0.3 | | 0.3 | % | -25ºC to +85ºC |
| Withstanding Voltage | | ----- | 50 | ----- | V | DC , 1 min |
| Rating Voltage | (1) D.C.Voltage | ----- | ----- | 6 | V | |
| | (2) A.C. Voltage | ----- | ----- | 15 | Vp-p. | |
| Insulation Resistance | | 100 | ----- | ----- | MΩ | 10V, 1min |
| Operation Temperature | | -25 | ----- | 85 | ºC | |
| Storage Temperature | | -55 | ----- | 85 | ºC | |
| Aging Rate (Fosc) (10 years) | | -0.3 | ----- | 0.3 | % | |

## TEST CIRCUIT:




X: Ceramic Resonator
1. Input
2. Ground
3. Output

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:

(Left blank if standard)

AWSCR – X.XXMGD - C□□ - □

| Frequency | Load Capacitance | Packaging |
|---|---|---|
| Frequency in MHz | Contact ABRACON for Built-in Capacitance options | T: 1000pcs/Reel<br>T4: 4000pcs/Reel |

# 7.4 x 3.4 x 1.8mm BUILT-IN CAPACITANCE CERAMIC RESONATOR

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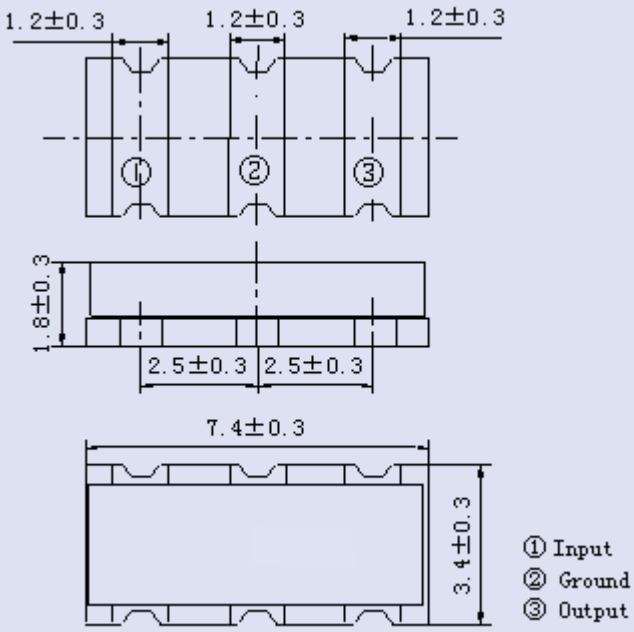
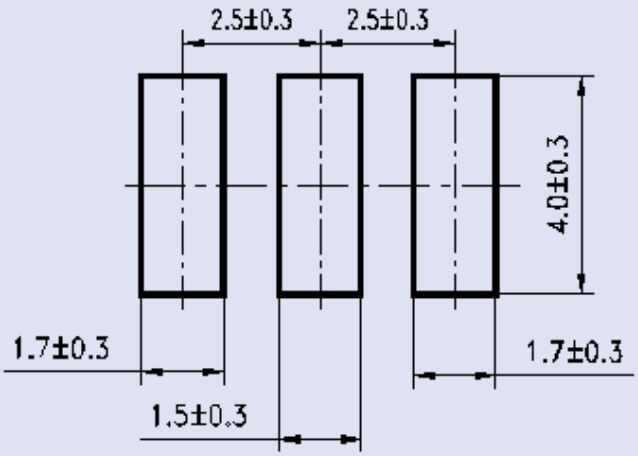
## OUTLINE DRAWING:



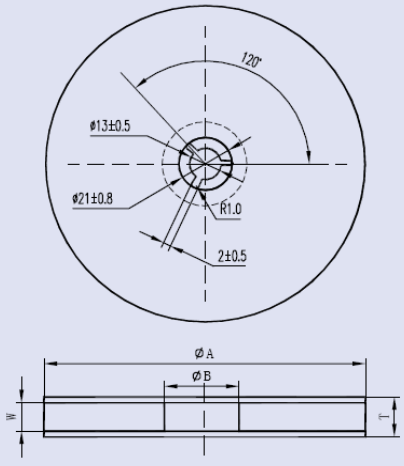

### Recommended Land Pattern

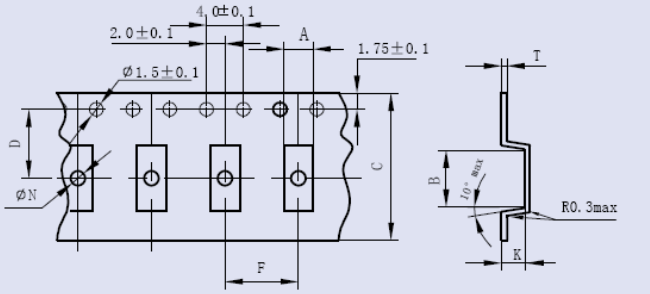



**Dimension: mm**

## TAPE & REEL: (4,000pcs/reel):

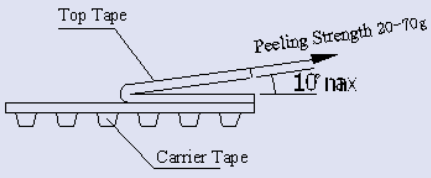
**T: 1000pcs/reel**
**T4: 4000pcs/reel**




| A | B | C | D | F | ØN | K | T | 对应产品 |
|---|---|---|---|---|---|---|---|---|
| 3.8±0.2 | 7.8±0.2 | 16.0±0.2 | 7.5±0.1 | 8.0±0.1 | 1.55±0.05 | 2.1±0.1 | 0.3±0.05 | CC |

| Reel Quantity | ΦA | ΦB | W | T | Pieces per reel | Carrier tape size |
|---|---|---|---|---|---|---|
| 1000 (T) | 179±2 | 60 typ. | 16.4 min | 22.4 max | 1000 typ. | 16 |
| 4000 (T4) | 330±3 | 80 min | 16.4 min | 22.4 max | 4000 typ. | 16 |




**Dimension: mm**

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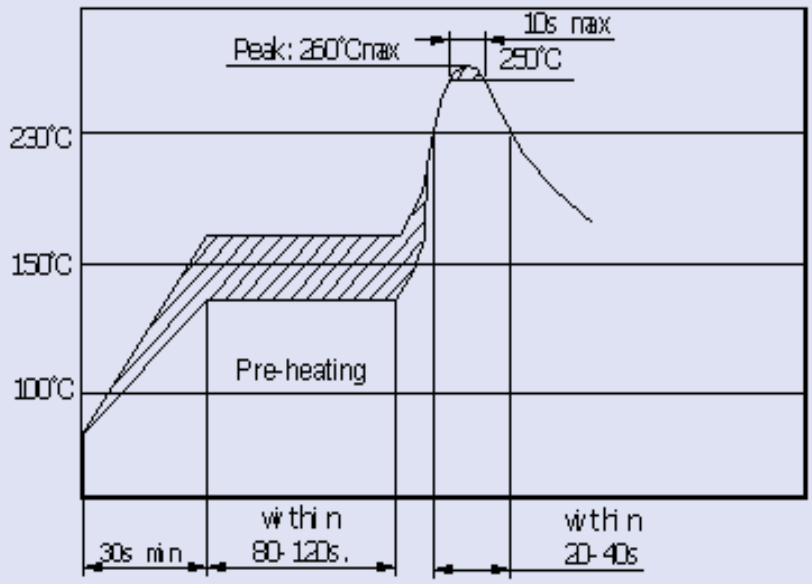
## REFLOW PROFILE:




Dimension: 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.