

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

AWSCR-MGD



7.4 x 3.4 x 1.8mm

Obsolete/End of Life Date: 10/26/2016 - Please consider AWSCR - CP as an alternative

## AWSCR-MGD

Moisture Sensitivity Level (MSL) – This product is not Moisture Sensitive - MSL = 1

RoHS/RoHS II Compliant

Pb in ceramic, exemption (7c-I)

### FEATURES:

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

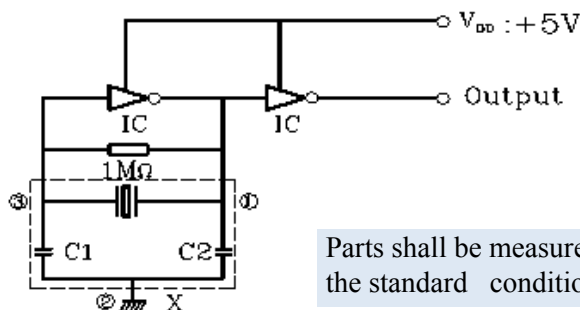
### APPLICATIONS:

- 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
					2.40 MHz - 2.99 MHz
	22 - 20%	22	22 + 20%		3.00 MHz - 3.49 MHz
					3.50 MHz - 8.00 MHz
Frequency Tolerance	-0.5		0.5	%	
Frequency Stability	-0.3		0.3	%	-25°C to +85°C
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	°C	
Storage Temperature	-55		85	°C	
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**  
Frequency in MHz

**Load Capacitance**  
Contact ABRACON  
for Built-in  
Capacitance options

**Packaging**  
T: 1000pcs/Reel  
T4: 4000pcs/Reel

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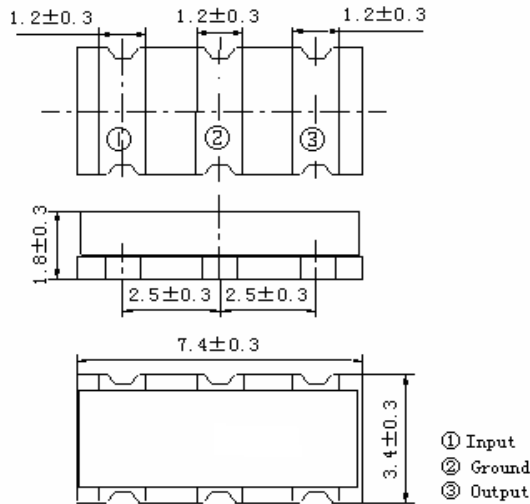
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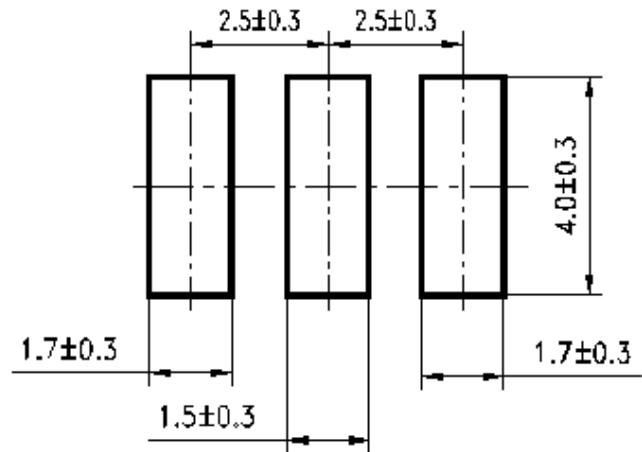


7.4 x 3.4 x 1.8mm

## OUTLINE DRAWING:



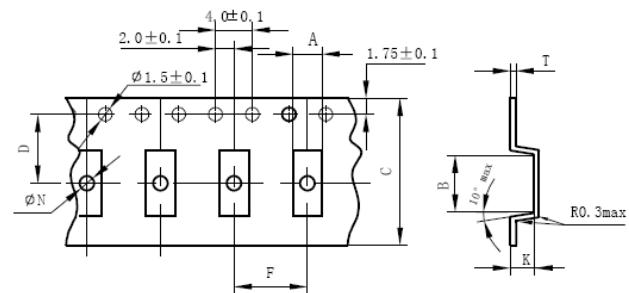
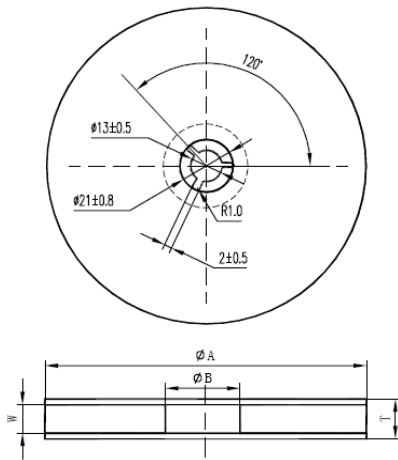
## Recommended Land Pattern



Dimension: mm

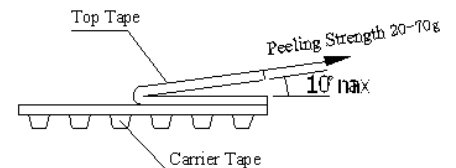
## TAPE & REEL:

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



A	B	C	D	F	φN	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

Note: upon opening the original packaging, it is recommended that the product be used within 1 year. If the product will not be used within 1 year, it is recommended that the product be re-sealed in airtight packaging according to MSL 1 requirements to maintain solderability.

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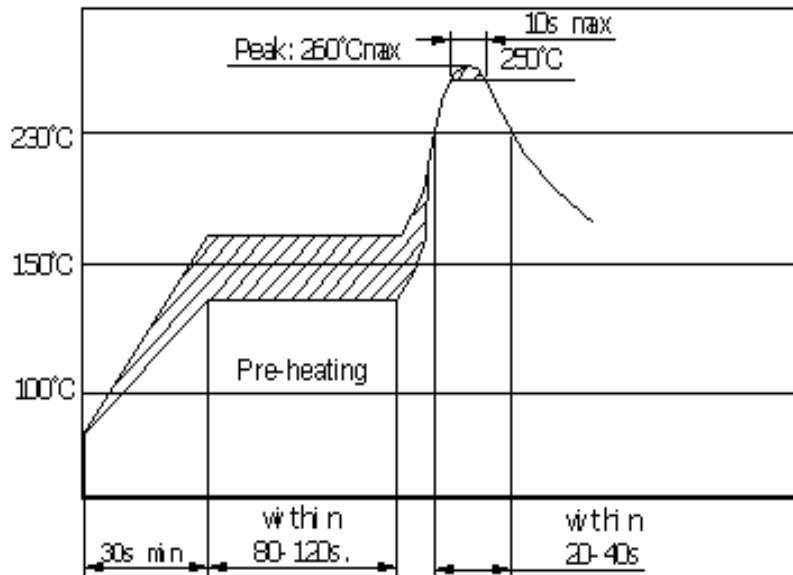
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7.4 x 3.4 x 1.8mm

## 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.
- 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.

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

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