



## Ceramic Resonator - CRA

**Pin Type - 10.0 x 10.0 x 5.0**

### • Features

Low cost & wide applications

Industrial standard

RoHS compliant

### • General Specification

Type	CRA/ MG	CRA/ MT	CRA / MX
	2pins, no built-in capacitor		
Frequency Range	1.80 to 6.00MHz	6.01 to 13.00MHz	13.01 to 60.00MHz
Frequency Stability at 25°C	0.50%	0.50%	±0.5%
Frequency Stability vs Temperature Range	±0.3%	±0.3%	±0.3%
Operating Temperature Range	-20°C to +80°C	-20°C to +80°C	-20°C to +80°C
Storage Temperature Range	-35°C to +85°C	-35°C to +85°C	-35°C to +85°C
Series Resistance ESR	100Ω	30Ω	40Ω
Operating Voltage	5V	5V	5V
Aging for 10 years	±0.3%	±0.3%	±0.3%
Built-in Capacitor (C1, C2)	No	No	No

### • Holder and Type Codes

CR = Ceramic Resonator	A = 2pins, no built-in capacitor
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### • Lead Type Code

Blank = N/A
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### • Vibration Mode Codes

G = Thickness Shear	T = Thickness Expander	X = Thickness Expander (3rd OT)
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### • Frequency Stability vs Temperature Codes

1 = ±0.1%	2 = ±0.2%	3 = ±0.3%	5 = ±0.5%
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NEWXTAL - New Crystal

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# Ceramic Resonator - CRA

## • Loading Capacitance Codes (pF)

1 = 5	2 = 6	3 = 15	4 = 22
5 = 30	6 = 47	8 = 100	

## • Marking

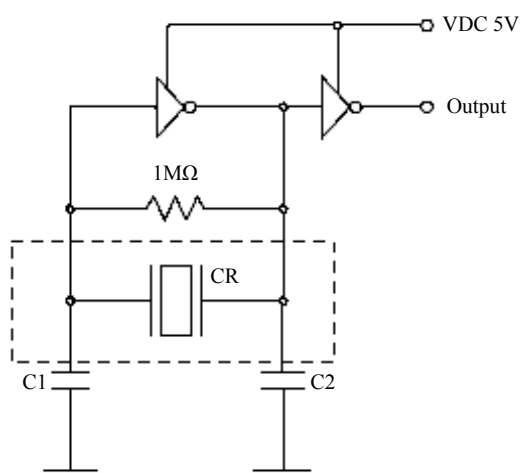
Frequency + M (MHz)

## • Ordering Information

Holder	Type	Lead Type	Frequency	Vibration Mode	Frequency Stability vs Temp	Load Capacitance	Packing
			(MHz)			(pF)	
See Tables			xx.xxxM	See Tables			Blank=N/A
	A=2pins, no built-in				±0.3%	30	
<b>CR</b>	<b>A</b>			<b>G</b>	<b>3</b>	<b>5</b>	

For Example: CRA3.58MG35

## • Test Circuit



C1/C2:  
 30pF (1.80 to 20.00MHz)  
 15pF(20.01 to 25.99MHz)  
 5pF(26.00 to 50.00MHz)

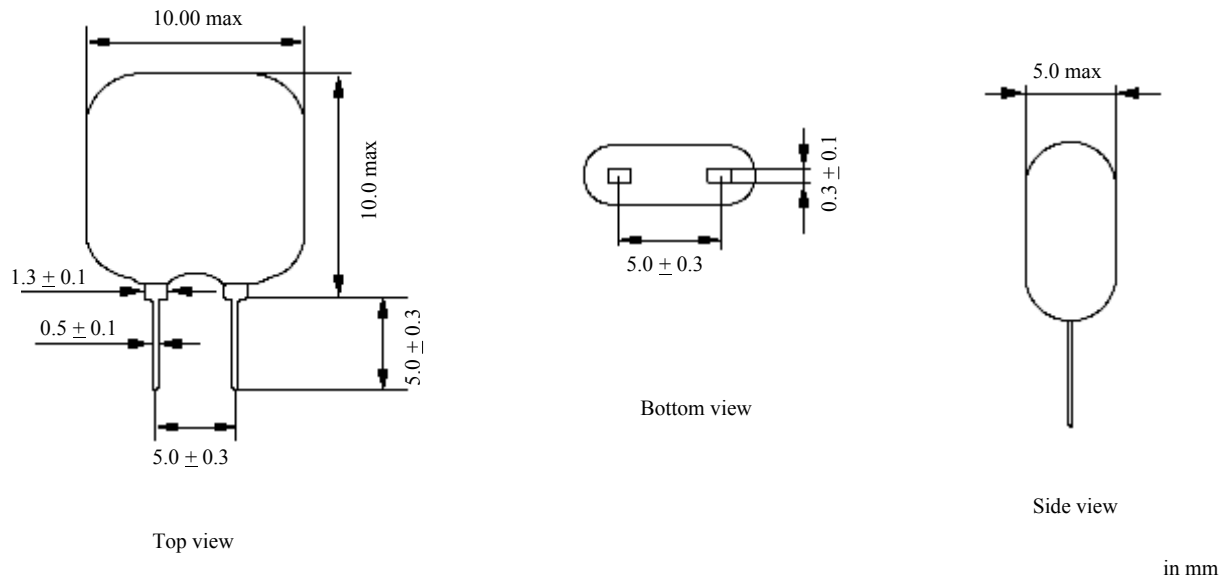
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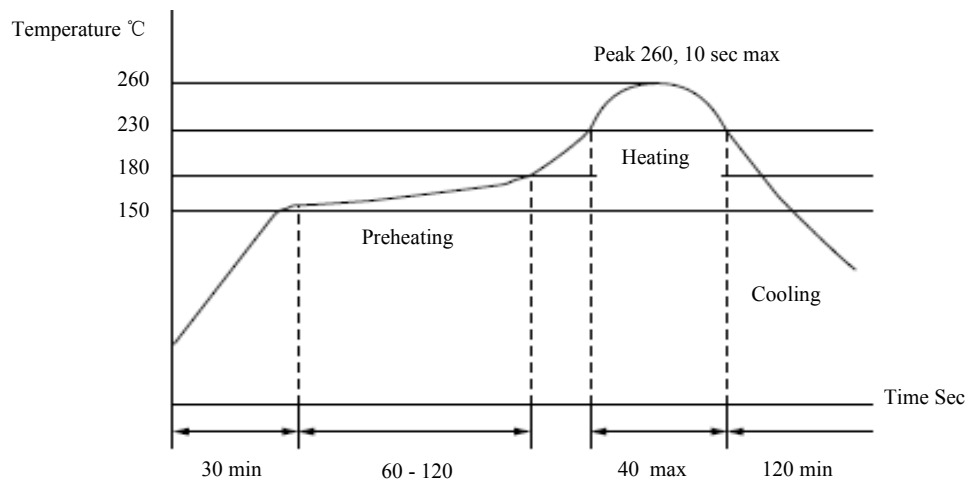
## • Dimensions



## • Packing

Bulk.

## • Reflow Soldering Profile



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