



Ceramic Resonator - CRACC and CRTCC

SMD Version - 7.4 x 3.4 x 1.8

• Features

- Low cost & wide applications
- Industrial standard
- RoHS compliant

• General Specification

| Type | CRACC / MG | CRTCC / MG |
|--|------------------------------|--------------------------------|
| | 2pins, no built-in capacitor | 3pins, with built-in capacitor |
| Frequency Range | 2.00 to 7.99MHz | 2.00 to 7.99MHz |
| Frequency Stability at 25°C | ±0.5% | ±0.5% |
| Frequency Stability vs Temperature Range | ±0.3% (-20°C to +80°C) | |
| Operating Temperature Range | -20°C to +80°C | -20°C to +80°C |
| Storage Temperature Range | -35°C to +85°C | -35°C to +85°C |
| Series Resistance ESR | 200Ω (2.00MHz to 2.90MHz) | |
| | 100Ω (3.00MHz to 3.57MHz) | |
| | 300Ω (3.58MHz to 7.99MHz) | |
| Operating Voltage | 5V | 5V |
| Aging for 10 years | ±0.3% | ±0.3% |
| Built-in Capacitor (C1, C2) | No | Yes |

• Holder and Type Codes

| | | |
|------------------------|----------------------------------|------------------------------------|
| CR = Ceramic Resonator | A = 2pins, no built-in capacitor | T = 3pins, with built-in capacitor |
|------------------------|----------------------------------|------------------------------------|

• Lead Type Code

| |
|---------------------------|
| CC = SMD, 7.4 x 3.4 x 1.8 |
|---------------------------|

• Vibration Mode Codes

| | | |
|---------------------|------------------------|---------------------------------|
| G = Thickness Shear | T = Thickness Expander | X = Thickness Expander (3rd OT) |
|---------------------|------------------------|---------------------------------|

• Frequency Stability vs Temperature Codes

| | | | |
|-----------|-----------|-----------|-----------|
| 1 = ±0.1% | 2 = ±0.2% | 3 = ±0.3% | 5 = ±0.5% |
|-----------|-----------|-----------|-----------|

• Loading Capacitance Codes (pF)

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

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• Marking

Frequency + M (MHz)

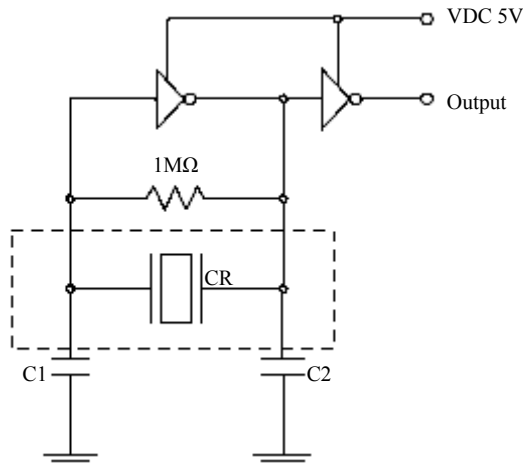
• Ordering Information

| Holder | Type | Lead Type | Frequency | Vibration Mode | Frequency Stability vs Temp | Load Capacitance | Packing |
|------------|----------------------|-----------|-----------|----------------|-----------------------------|------------------|----------------|
| | | | (MHz) | | | (pF) | |
| See Tables | | | xx.xxxM | See Tables | | | TR=tape & reel |
| | A=2pins, no built-in | | | | +0.3% | 30 | |
| CR | A | CC | | G | 3 | 5 | TR |

For Example: CRACC3.58MG35/TR

• Test Circuit

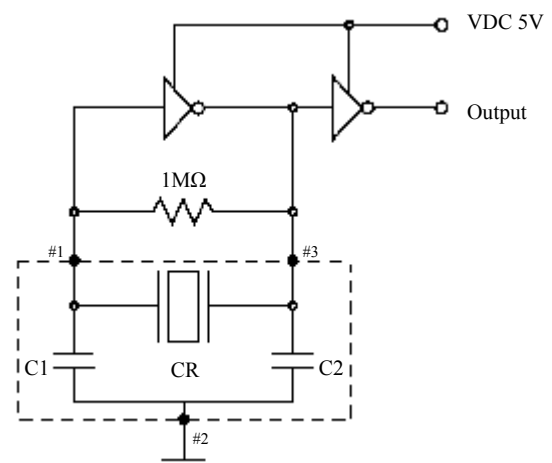
1. CRACC



no built-in capacitance

C1/C2: 30pF

2. CRTCC

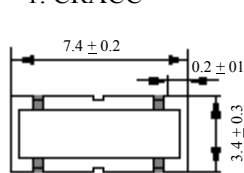


with built-in capacitor

C1/C2: 30pF

• Dimensions

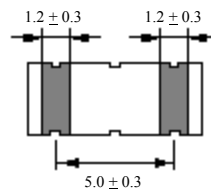
1. CRACC



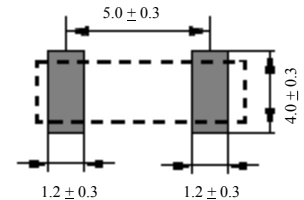
Top view



Side view

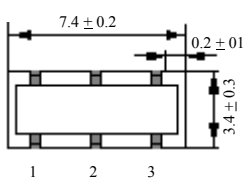


Bottom view

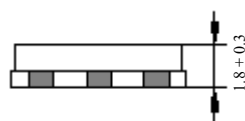


Pad layout

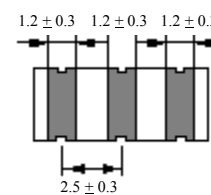
2. CRTCC



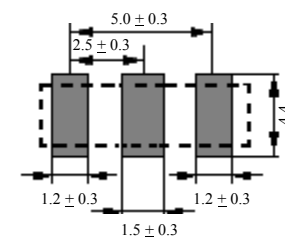
Top view



Side view



Bottom view

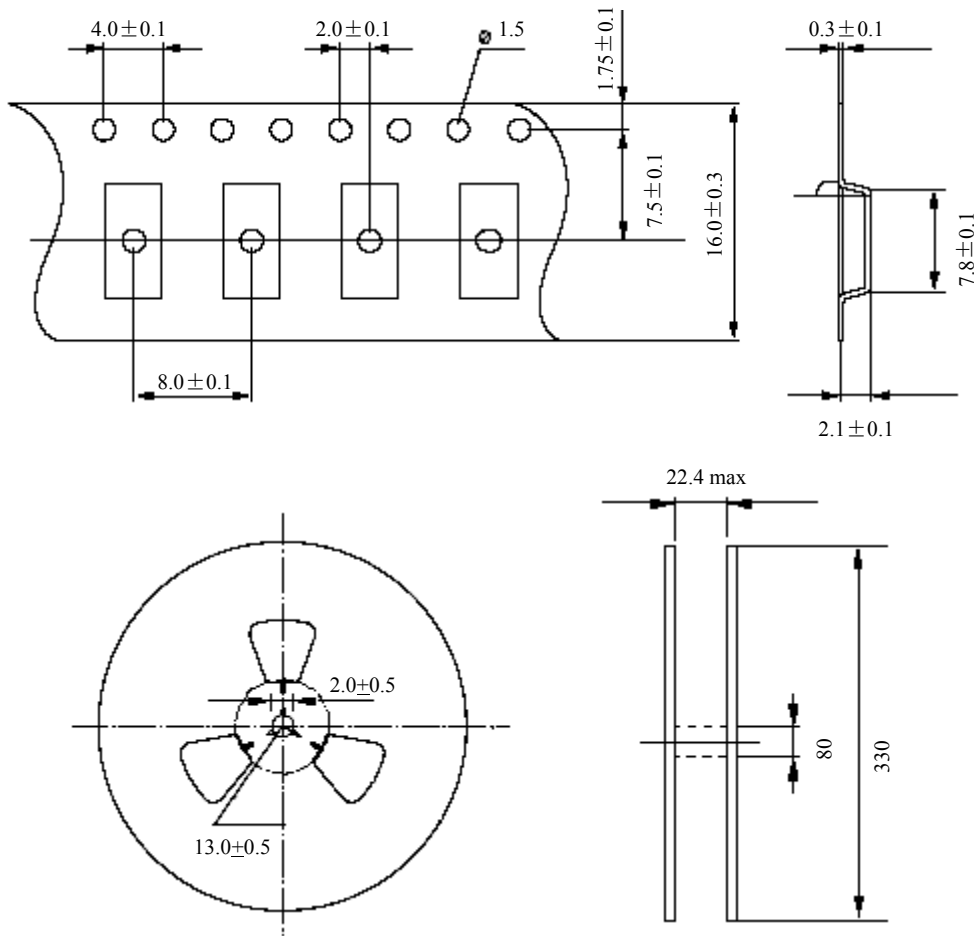


Pad layout

in mm

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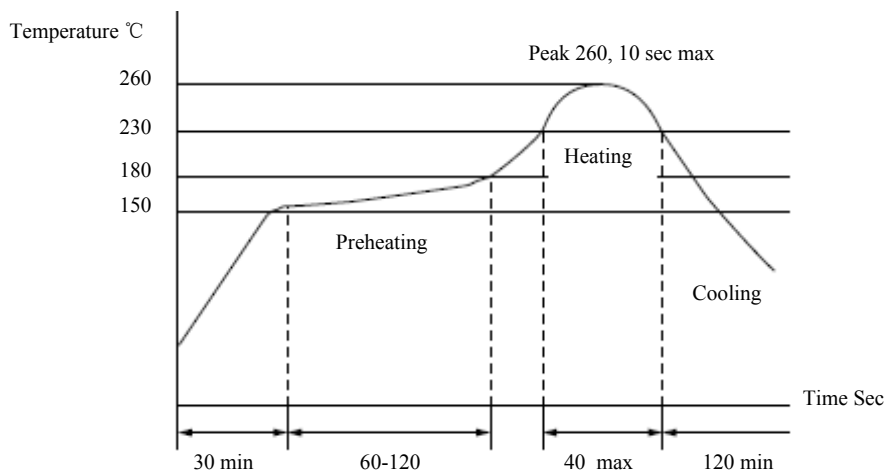
Tape & Reel Specification



in mm

* Reel Quantity: 1,000pcs to 4,000pcs

Reflow Soldering Profile



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