

# ECS-CR2-B

## SMD Ceramic Resonator

The ECS-CR2-B Chip Type SMD ceramic resonator includes built in capacitors for reduced component count. The SMD Ceramic resonator is an excellent low cost frequency control solution when absolute frequency accuracy is not important.

Request a Sample

#### **OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS**

| ECS-CR2-B |  |  |  |
|-----------|--|--|--|
|           |  |  |  |
|           |  |  |  |
|           |  |  |  |
|           |  |  |  |
|           |  |  |  |

| Part Number *   | Frequency<br>Range (MHz) | Frequency<br>Accuracy<br>@25°C (%) | Frequency<br>Stability<br>-20 ~ +80°C<br>(%) | Aging for<br>Ten Years<br>(%) | ESR<br>(Ω)<br>MAX | Built-in<br>Capacitance<br>(C1 & C2) | Insulation<br>Resistance<br>@ 10VDC |
|-----------------|--------------------------|------------------------------------|--|-------------------------------|-------------------|--------------------------------------|-------------------------------------|
| ECS-CR2-□□∎□□-B | 8.00 ~ 13.00             | ±0.5                               | ±0.3   | ±0.3                          | 25                | 30 pF                                | 100 M Ω Min.                        |
| ECS-CR2-□□∎□□-B | 13.10 ~ 40.00            | ±0.5                               | ±0.3   | ±0.3                          | 40                | 15pF                                 | 100 M Ω Min.                        |

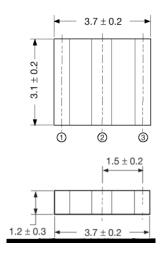
Complete part number to include frequency

- Chip Type SMD package
- RoHS Compliant (Note 7 Exemption)
- Built-in Load Capacitor
- Tape and Reel Packaging

### Part Numbering Guide: ECS-CR2-20.00-B-TR

| ECS | - Series                                | - Frequency       | - Version -       | Packaging                   |
|-----|---|-------------------|-------------------|-----------------------------|
| ECS | CR2 = 8 ~ 13 MHz<br>CR2 = 13.1 ~ 40 MHz | 20.00 = 20.00 MHz | B = Built In Caps | TR = Tape & Reel<br>1K/Reel |

# **Package Dimensions (mm)**



| Pin Connections |        |  |  |
|-----------------|--------|--|--|
| #1              | In/Out |  |  |
| #2              | Ground |  |  |
| #3              | Out/In |  |  |

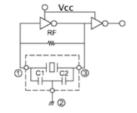


Figure 2) Test Circuit (74HCU04P)

| Figure 1) | Top and | Side | Views |
|-----------|---------|------|-------|
|-----------|---------|------|-------|

| Dimensions (mm) |          |          |           |  |
|-----------------|----------|----------|-----------|--|
| T1              | T2       | Т3       | W1        |  |
| 0.7 ±0.2        | 1.0 ±0.2 | 1.5 ±0.2 | 4.1 ± 0.2 |  |

Figure 3) Land Pattern