

Surface Mount UM-1

Series **CM1J**

- *Smaller than C49J with the same characteristics*
- *SMD profile*
- *Grounded case better for EMI*



Part Numbering Example: CM1J - Z - A1 B2 C2 50 - 7.0 D18 - 3

| CM1J | Z | A1* | B2 | C2 | 50 | 7.0 | D18 | -3 |
|--------|--|---|--|--|--------------------|-----------|----------------------------------|---|
| SERIES | ADDED FEATURES | OPERATING TEMP. | STABILITY | TOLERANCE | RESISTANCE | FREQUENCY | LOAD CAP. | OVERTONE |
| CM1J | BLANK = BULK PACK Z = TAPE AND REEL | A0 = -10°C ~ +60°C A1 = -10°C ~ +70°C A2 = -40°C ~ +85°C A3 = -55°C ~ +125°C | B1 = ±100 B2 = ± 50 B3 = ± 30 B4 = ± 10 | C1 = ±100 C2 = ± 50 C3 = ± 30 C4 = ± 10 | SEE CHART BELOW | | D16, 18, 20, ETC. DS = SERIES | BLANK: FUND. -3: 3rd OT -5: 5th OT -7: 7th OT -BT: BT Cut |

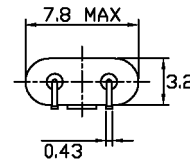
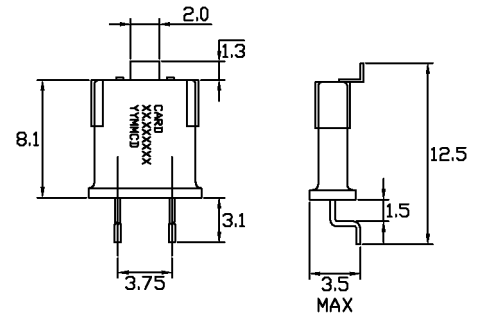
**NOTE: The above ABC combinations cover basic specification options. We tailor our crystal specifications to meet customer requirements. Please contact our sales department if you don't see exactly what you need.*

Specifications:

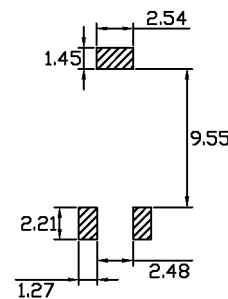
| | |
|--|---|
| Frequency Range: | 10.000 ~ 175.000 MHz |
| Operating Temperature: | -10°C ~ + 70°C <i>Standard</i> -40°C ~ + 85°C -55°C ~ +125°C |
| Frequency Stability: | ± 100 ppm ± 50 ppm <i>Standard</i> ± 30 ppm ± 10 ppm |
| Frequency Tolerance: (at 25°C) | ± 100 ppm ± 50 ppm <i>Standard</i> ± 30 ppm ± 10 ppm |
| Load Capacitance: | Standard 18 pF or series. Please specify your required load. |
| Resistance: | Maximum resistance corresponds to frequency. See below. |
| Standard: | Mode: Fundamental, 3rd, 5th, or 7th Overtone Shunt Capacitance: 7 pF Max Aging: ± 5 ppm/year Drive Level: 1.0 mW Max |
| Optional Features: | Tape and Reel (1K per Reel) |

Note: Not all combinations of the above tolerances, stabilities, and temperature ranges are available. Consult the factory if your requirement is not standard.

CM1J



RECOMMENDED SOLDER PAD LAYOUT



Resistance Chart: All resistances are maximum values.

| EQUIVALENT SERIES RESISTANCE (ESR), MODE OF OPERATION (MODE) | | |
|--|----------------------------------|------------------------|
| Frequency MHz | Equivalent Series Resistance (Ω) | Oscillation Mode / Cut |
| 7.000~15.999 | 50 Max | Fundamental |
| 16.000~40.000 | 40 Max | Fundamental |
| 30.000~90.000 | 70 Max | Third Overtone |
| 70.000~175.000 | 100 Max | Fifth Overtone |

