

# QCM26 Series

## 2.0x6.0 Metal Cylindrical Quartz Crystal Unit

### Features

- AT-cut crystal performance
- Ideal for Microprocessor Applications
- RoHS compliant by exemption

### Applications

- Commercial and Industrial applications



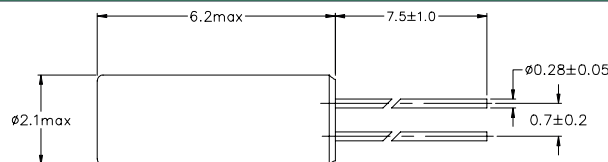
### General Specifications

|  |                |                                 |
|--|----------------|---------------------------------|
| Frequency Range                            |                | 6.000 to 48.000MHz              |
| Mode of Oscillation                        | Fundamental    | 6.000 to 36.000MHz              |
|  | Third Overtone | 36.000 to 48.000MHz             |
| Frequency Tolerance at 25°C                |                | ±30ppm                          |
| Frequency Stability over Temperature Range |                | ±30ppm                          |
| Operating Temperature Range                |                | -10 to +70°C                    |
| Storage Temperature                        |                | -55 to +125°C                   |
| Aging per Year                             |                | ±5ppm max.                      |
| Load Capacitance $C_L$                     |                | 10 to 32pF and Series Resonance |
| Shunt Capacitance $C_0$                    |                | 7.0pF max.                      |
| Equivalent Series Resistance (ESR)         |                | See ESR Table                   |
| Drive Level                                |                | 100μW max.                      |
| Insulation Resistance ( $M\Omega$ )        |                | 500 at 100Vdc ±15Vdc            |

### Equivalent Series Resistance (ESR)

| Frequency Range - MHz | $\Omega$ max. | Mode of Operation |
|-----------------------|---------------|-------------------|
| 6.000 to 12.000       | 100           | Fundamental       |
| 12.100 to 20.000      | 70            |                   |
| 20.100 to 36.000      | 50            |                   |
| 36.100 to 52.000      | 80            | Third Overtone    |

### Mechanical Dimensions



### Marking Code Guide

Contains frequency

### Part Numbering Guide

| Qantek Code | Package  | Nominal Frequency (in MHz)                             | Vibration Mode | Load Capacitance  | Operating Temperature Range | Frequency Tolerance                            | Frequency Stability                            | Packaging               |
|-------------|--|--|----------------|---|-----------------------------|--|--|-------------------------|
| Q = Qantek  | CM26 = 2.0x6.0 Metal Cylindrical Quartz Crystal Unit | 7 digits including the decimal point (f.i.e. 12.00000) | F = AT-Fund    | S = Series<br>08 = 8pF<br><b>12 = 12pF</b><br>18 = 18pF<br>20 = 20pF etc. | <b>A = -10 to +70°C</b>     | <b>3 = ±30ppm</b><br>5 = ±50ppm<br>0 = ±100ppm | <b>3 = ±30ppm</b><br>5 = ±50ppm<br>0 = ±100ppm | B = Bulk (1000 pcs/bag) |

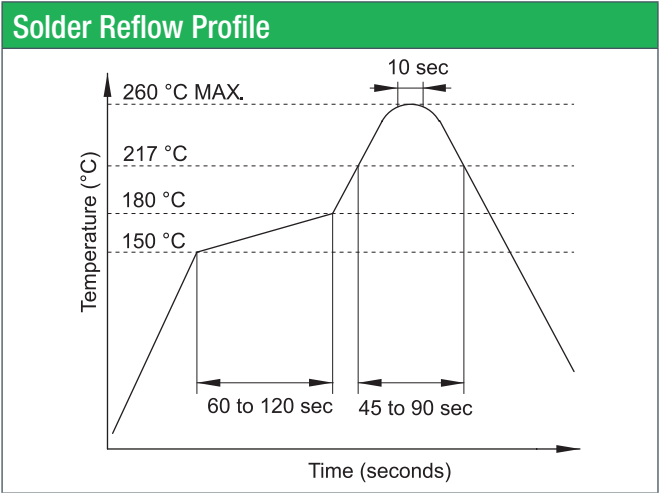
Example: QCM2612.0000F12A33B

bold letters = recommended standard specification



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Environmental Specifications

|                  |                               |
|------------------|-------------------------------|
| Mechanical Shock | MIL-STD-202, Method 213, C    |
| Vibration        | MIL-STD-202, Method 201 & 204 |
| Thermal Cycle    | MIL-STD, Method 1010, B       |
| Gross Leak       | MIL-STD-202, Method 112       |
| Fine Leak        | MIL-STD-202, Method 112       |

All specifications are subject to change without notice.

