

## Quartz Crystal Leaded Package 3.2 X 10.5mm Cylindrical Package

# RoHS Compliant

#### **Features**

- High frequency AT CUT crystal performance
- Small compact size
- Excellent shock
- Environmental characteristics



#### **Electrical Specifications**

| Frequency Range                            | 3.579 to 70.000                         |                  |         |  |
|--|---|------------------|---------|--|
| Made of Oscillation                        | Fundamental                             | 3.579 to 32.000  | MHz     |  |
| Mode of Oscillation                        | Third Overtone                          | 32.001 to 70.000 | ]       |  |
| Frequency Tolerance at 25°C                | Standard                                | ±30              | DDMMarr |  |
| Frequency Stability over Temperature Range | Standard                                | ±50              | PPM Max |  |
| On a setting Towns a setting Danies        | Standard                                | -10 to +60       | °C      |  |
| Operating Temperature Range                | Extended                                | -40 to +85       |         |  |
| Storage Temperature Range                  | -55 to +125                             |                  |         |  |
| Aging                                      | ±5 first year PPM Max/<br>±3 thereafter |                  |         |  |
| Load Capacitance                           | 10 to 32 or<br>Series Resonance         | pF               |         |  |
| Shunt Capacitance                          | 5.0                                     | pF Max           |         |  |
| Equivalent Ser Resistance (ESR)            | See ESR Table                           | Ohms             |         |  |
| Drive Level                                | 100                                     | uW Max           |         |  |
| Insulation Resistance                      | 500 at 100Vdc (±15Vdc)                  | M Ohm            |         |  |

#### Frequency Range vs. ESR Values

| Frequency Range in MHz | ESR Ohms Max | Frequency Range in MHz | ESR Ohms Max    |  |
|------------------------|--------------|------------------------|-----------------|--|
| 3.579 to 4.000         | 200          | 10.001 to 32.000       | 50              |  |
| 4.100 to 6.000         | 150          | 30.000 to 36.000       | 100 (Fund/ 3OT) |  |
| 6.100 to 10.000        | 100          | 36.001 to 70.000       | 80 (3OT)        |  |

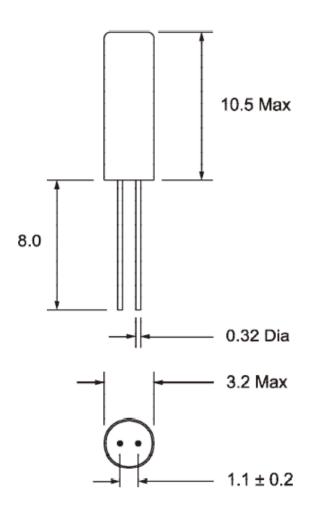


### Part Numbering System

| Туре |   | Frequency |   | Load Capacitance                         |   | Mode(*1)             |   | Extended Temperature(*1) |
|------|---|-----------|---|--|---|----------------------|---|--------------------------|
| WDCS | - | in MHz    | - | 10 to 32 for Parallel or<br>S for Series | - | 3OT – Third Overtone | - | EXT                      |

Examples: WDCS-4.000-18 or WDCS-40.000-S-3OT-3030-EXT

#### **Mechanical Outline**



#### Notes:

- 1 Fundamental Mode, Standard Temperature, do not need to be included in Part Number description.
- 2 Product is shipped in Bulk. Each bag contains 1000 pieces.
- 3 Specification subject to change without notice.