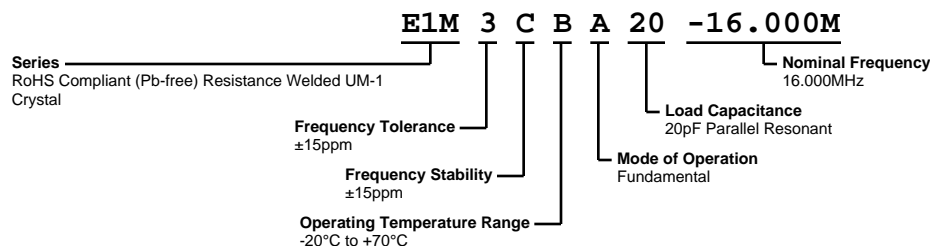


# E1M3CBA20-16.000M



**ECLIPTEK**  
CORPORATION



## ELECTRICAL SPECIFICATIONS

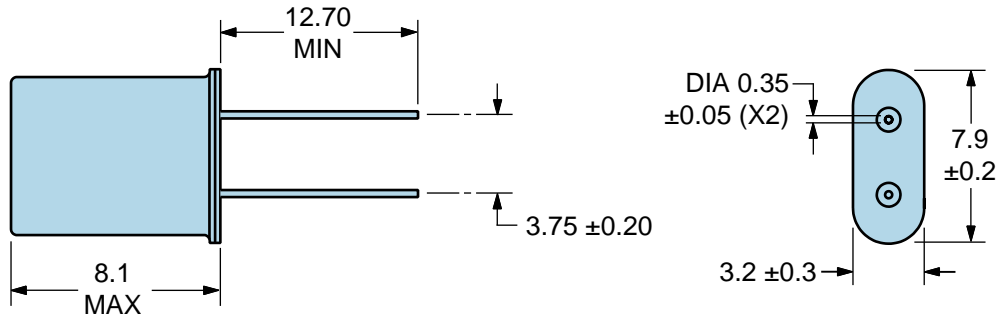
|                               |   |
|-------------------------------|---|
| Nominal Frequency             | 16.000MHz                                       |
| Frequency Tolerance           | $\pm 15\text{ppm}$                              |
| Frequency Stability           | $\pm 15\text{ppm}$                              |
| Aging at $25^{\circ}\text{C}$ | $\pm 1\text{ppm/year}$ Maximum                  |
| Operating Temperature Range   | $-20^{\circ}\text{C}$ to $+70^{\circ}\text{C}$  |
| Load Capacitance              | 20pF Parallel Resonant                          |
| Shunt Capacitance (C0)        | 7pF Maximum                                     |
| Equivalent Series Resistance  | 40 Ohms Maximum                                 |
| Mode of Operation             | Fundamental                                     |
| Drive Level                   | 10 $\mu$ Watts Maximum                          |
| Crystal Cut                   | AT-Cut  |
| Storage Temperature Range     | $-55^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ |
| Insulation Resistance         | 500 Megaohms Minimum (Measured at 100Vdc)       |

## ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

|                              |   |
|------------------------------|---|
| ESD Susceptibility           | MIL-STD-883, Method 3015, Class 1, HBM: 1500V |
| Fine Leak Test               | MIL-STD-883, Method 1014, Condition A         |
| Flammability                 | UL94-V0                                       |
| Gross Leak Test              | MIL-STD-883, Method 1014, Condition C         |
| Lead Integrity               | MIL-STD-883, Method 2004                      |
| Mechanical Shock             | MIL-STD-202, Method 213, Condition C          |
| Moisture Resistance          | MIL-STD-883, Method 1004                      |
| Moisture Sensitivity         | J-STD-020, MSL 1                              |
| Resistance to Soldering Heat | MIL-STD-202, Method 210, Condition K          |
| Resistance to Solvents       | MIL-STD-202, Method 215                       |
| Solderability                | MIL-STD-883, Method 2003                      |
| Temperature Cycling          | MIL-STD-883, Method 1010, Condition B         |
| Vibration                    | MIL-STD-883, Method 2007, Condition A         |

# E1M3CBA20-16.000M

## MECHANICAL DIMENSIONS (all dimensions in millimeters)



| LINE | MARKING  |
|------|--|
| 1    | <b>E16.00</b><br><i>E=Ecliptek Designator</i>                        |
| 2    | <b>XXXXXX</b><br><i>XXXXXX=Ecliptek<br/>Manufacturing Identifier</i> |