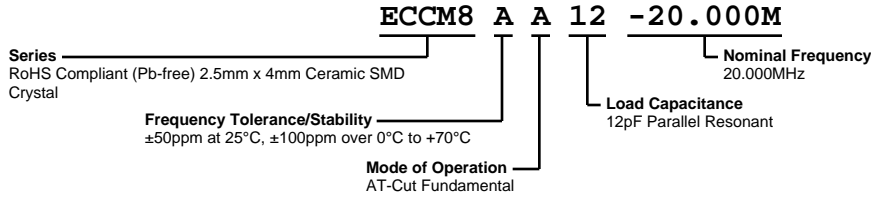


ECCM8AA12-20.000M



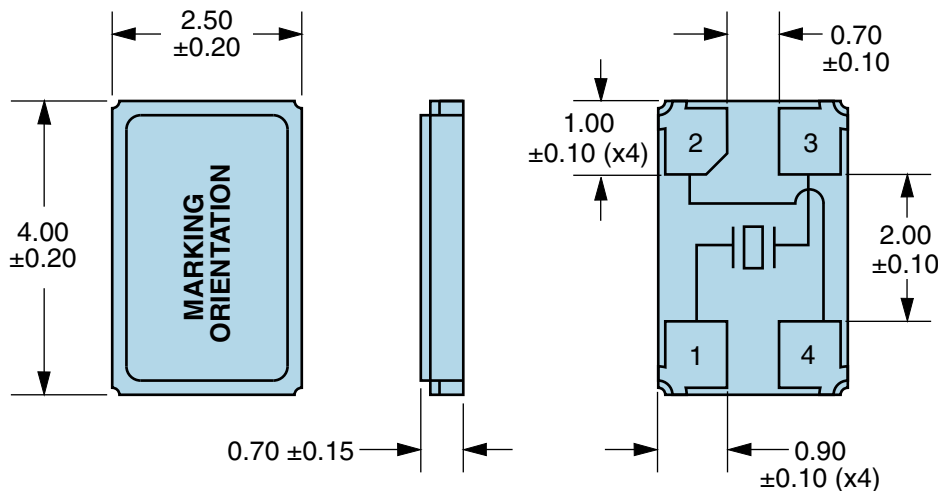
ELECTRICAL SPECIFICATIONS

| | |
|-------------------------------|--|
| Nominal Frequency | 20.000MHz |
| Frequency Tolerance/Stability | ±50ppm at 25°C, ±100ppm over 0°C to +70°C |
| Aging at 25°C | ±3ppm/Year Maximum |
| Load Capacitance | 12pF Parallel Resonant |
| Shunt Capacitance (C0) | 5pF Maximum |
| Equivalent Series Resistance | 60 Ohms Maximum |
| Mode of Operation | AT-Cut Fundamental |
| Drive Level | 100µWatts Maximum, 10µWatts Correlation |
| Crystal Cut | AT-Cut |
| Spurious Response | >3dB from Fo to Fo+5000ppm |
| Drive Level Dependency (DLD2) | 20% of Maximum ESR Limit (from 1µWatt to 100µWatt) |
| Insulation Resistance | 500 Megaohms Minimum 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 |
| Mechanical Shock | MIL-STD-883, Method 2002, Condition B |
| 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 |

MECHANICAL DIMENSIONS (all dimensions in millimeters)



| PIN | CONNECTION |
|-----|--------------|
| 1 | Crystal |
| 2 | Cover/Ground |
| 3 | Crystal |
| 4 | Cover/Ground |

| LINE | MARKING |
|------|--|
| 1 | E20.0 E=Ecliptek |
| 2 | XXXXX XXXXX=Ecliptek Manufacturing Identifier |