



4 Pad Plastic Package Quartz Crystal, 3.8 mm x 8 mm



IL3M Series

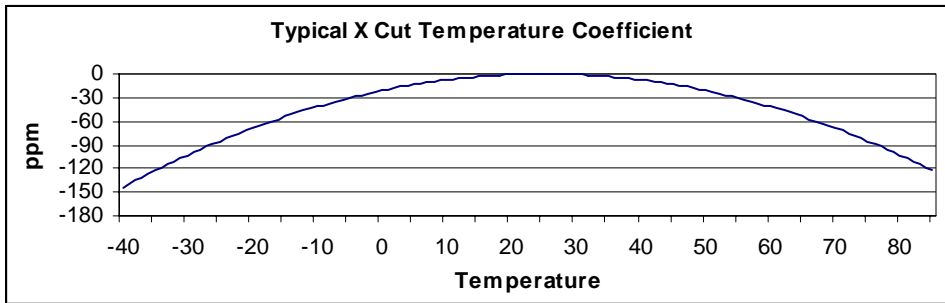
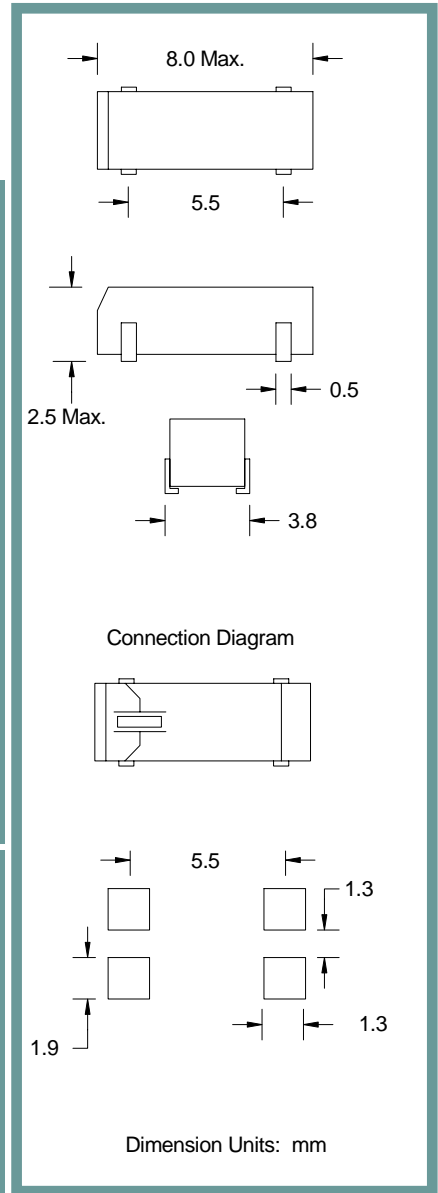
Product Features:

- ±20 ppm Stability
- SMD Package
- RoHS Compliant

Applications:

- Real Time Clocks
- Metering
- Industrial Control
- Time Reference

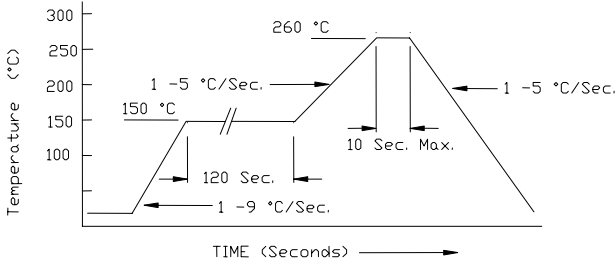
| | |
|--------------------------------------|--|
| Frequency | 32.768Khz |
| ESR (Equivalent Series Resistance) | 50 KΩ Max. |
| Shunt Capacitance (C0) | 1.7 pF Typical |
| Frequency Tolerance @ 25° C | ±20 ppm Standard |
| Frequency Stability over Temperature | Parabolic -0.034 ppm / ° C ² Typical. Inflection point approx. 27° C, See Graph Below |
| Crystal Cut | X-Cut |
| Load Capacitance | 12.5 pF Standard |
| Drive Level | 1 uW Max. |
| Aging | ±5 ppm Max. / Year Standard |
| Temperature | |
| Operating | -40° C to +85° C Standard |
| Storage | -40° C to +85° C Standard |



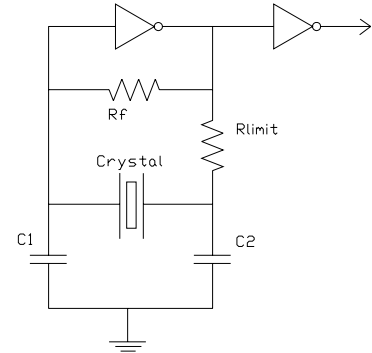
| Part Number Guide | | Sample Part Number: IL3M - HX5F12.5 - 32.768 KHz | | | | |
|-------------------|-------------------------------------|--|-----------------------------|-----------------|------------------------------------|--------------|
| Package | Stability (ppm) at Room Temperature | Stability (ppm) over Operating Temperature | Operating Temperature Range | Mode (overtone) | Load Capacitance (pF) | Frequency |
| IL3M - | H = ±20 ppm | X = X Cut | 5 = -40°C to +85°C | F = Fundamental | 12.5 pF Standard 6 pF Available | - 32.768 KHz |

Pb Free Solder Reflow Profile:

Typical Circuit:



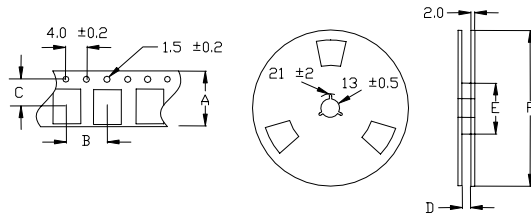
*Units are backward compatible with 240C reflow processes



Package Information:

MSL = 2a
Termination = e1 (Sn/Cu/Ag over Ni over Kovar base metal)

Tape and Reel Information:



| Quantity per Reel | 1000 |
|-------------------|--------------|
| A | 16 +/- .3 |
| B | 8 +/- .2 |
| C | 7.5 +/- .2 |
| D | 17.5 +/- 1.5 |
| E | 50 / 60 / 80 |
| F | 180 / 250 |

Environmental Specifications

| | |
|------------------------------|--|
| Thermal Shock | MIL-STD-883, Method 1011, Condition A |
| Moisture Resistance | MIL-STD-883, Method 1004 |
| Mechanical Shock | MIL-STD-883, Method 2002, Condition B |
| Mechanical Vibration | MIL-STD-883, Method 2007, Condition A |
| Resistance to Soldering Heat | J-STD-020C, Table 5-2 Pb-free devices (except 2 cycles max) |
| Hazardous Substance | Pb-Free / RoHS / Green Compliant |
| Solderability | JESD22-B102-D Method 2 (Preconditioning E) |
| Terminal Strength | MIL-STD-883, Method 2004, Test Condition D |
| Gross Leak | MIL-STD-883, Method 1014, Condition C |
| Fine Leak | MIL-STD-883, Method 1014, Condition A2, R1=2x10 ⁻⁸ atm cc/s |
| Solvent Resistance | MIL-STD-202, Method 215 |

Marking

Line 1: 32C, Date Code(YWW)