



Leaded Oscillator, VCXO, TTL / HC-MOS
Metal Package, Full Size DIP and Half DIP



I212 / I213 Series

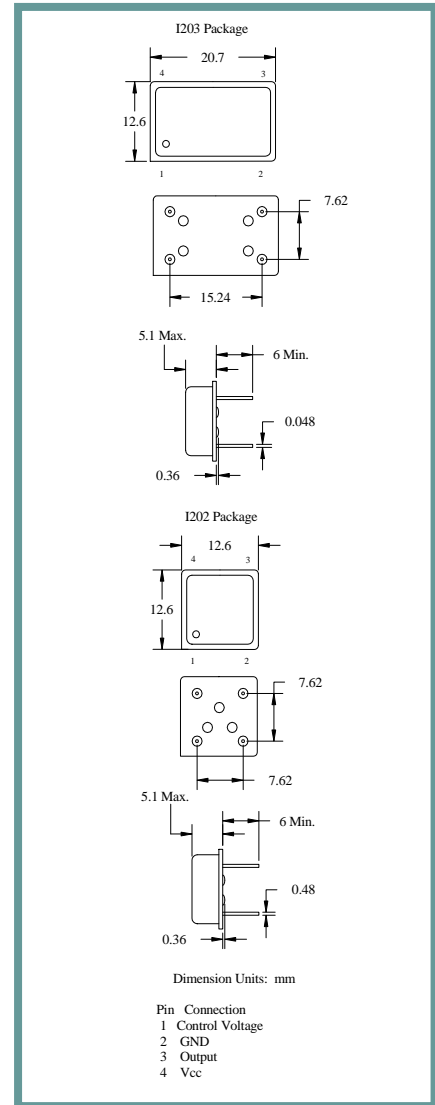
Product Features:

CMOS/TTL Compatible Logic Levels
Compatible with Leadfree Processing
RoHS Compliant

Applications:

Server & Storage
Sonet /SDH
802.11 / Wifi
T1/E1, T3/E3

| | |
|--------------------------------------|--|
| Frequency | 51.84 MHz to 170.000 MHz |
| Output Level HC-MOS TTL | '0' = 0.1 Vcc Max., '1' = 0.9 Vcc Min. '0' = 0.4 VDC Max., '1' = 2.4 VDC Min. |
| Duty Cycle | 50% ±5% |
| Rise / Fall Time | 10 nS Max.* |
| Output Load HC-MOS TTL | Fo < 50 MHz = 10 TTL, Fo > 50 MHz = 5 LSTTL 15 pF |
| Frequency Stability | See Frequency Stability Table |
| Supply Voltage | See Input Voltage Table, tolerance ±10 % |
| Current | 50 mA Max.* |
| Control Voltage | 1.65 VDC ±1.5 VDC for Vcc = 3.3 VDC, 2.5 VDC ±2.0 VDC for VCC = 5.0 VDC |
| Slope | Positive |
| Operating | See Operating Temperature Table in Part Number Guide |
| Storage | -55° C to +125° C |



| Part Number Guide | | Sample Part Number: I212-1BC3-56.000 MHz | | | |
|-------------------|-----------------------|--|-------------------|----------------|--------------|
| Package | Operating Temperature | Frequency Stability | Pullability | Supply Voltage | Frequency |
| I212 - I213 - | 1 = 0° C to +70° C | F = ±20 ppm | B = ±50 ppm min. | 5 = 5.0 VDC | - 56.000 MHz |
| | 3 = -20° C to +70° C | X = ±30 ppm | C = ±100 ppm min. | 3 = 3.3 VDC | |
| | 4 = -30° C to +75° C | B = ±50 ppm | K = ±150 ppm min. | | |
| | 2 = -40° C to +85° C | C = ±100 ppm | L = ±200 ppm min. | | |

NOTE: A 0.01 µF bypass capacitor is recommended between Vcc (pin 4) and GND (pin 2) to minimize power supply noise.

* Frequency, supply, and load related parameters.



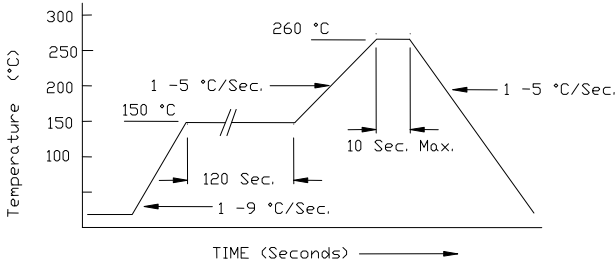
Leaded Oscillator, VCXO, TTL / HC-MOS
Metal Package, Full Size DIP and Half DIP



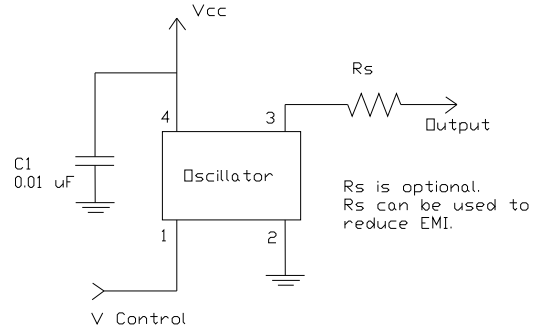
I212 / I213 Series

Pb Free Solder Reflow Profile:

Typical Application:



*Units are backward compatible with 240C reflow processes



Package Information:

MSL = N.A. (package does not contain plastic, storage life is unlimited under normal room conditions).
Termination = e4- (Sn / Cu / Ag over Ni over Kovar base metal).

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: ILSI and Date Code
Line 2: XXXX (Part Number detail = I203-XXXX-Freq.)
Line 3: Frequency