



5 mm x 7 mm Ceramic Package SMD VCXO, LVPECL / LVDS



I617 Series

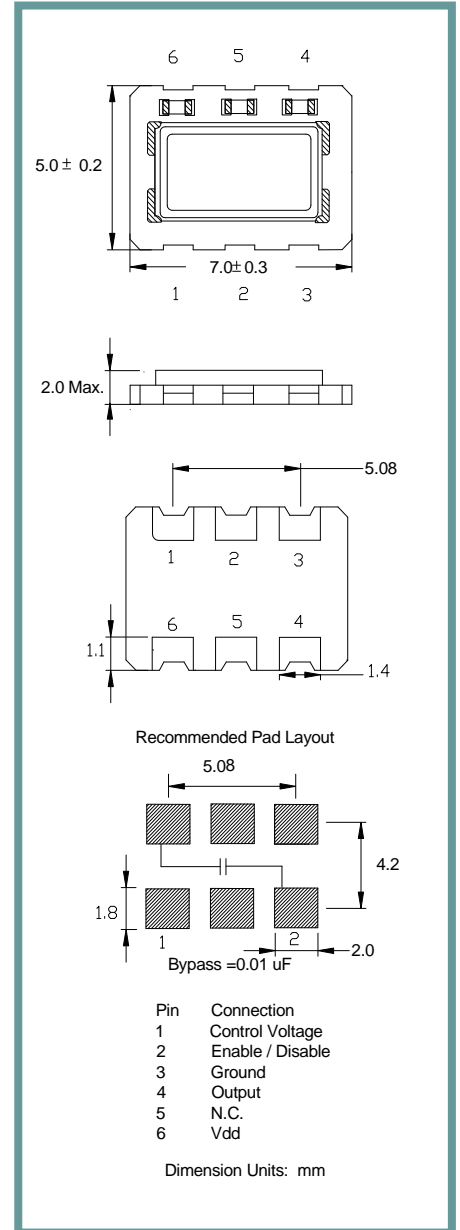
Product Features:

- Small Surface Mount Package
- Frequencies to 750 Mhz
- Pb Free/ RoHS Compliant
- Compatible with Leadfree Processing

Applications:

- SD/HD Video
- Wireless Base Stations
- Sonet /SDH
- Server and Storage

| | |
|----------------------------|-------------------------------------------------------------------------|
| Frequency | 77.76 MHz to 622.080 MHz |
| Output Level | V _{od} = 393 mV Typ., 475 mV Max. |
| LVDS | |
| LVPECL | '0' = V _{cc} - 1.63 V Max. '1' = V _{cc} - 1.02 V Min. |
| Duty Cycle | 50% ±10% |
| Rise / Fall Time | 0.6 nS Max. |
| Output Load | |
| LVDS | 100 Ω Differential |
| LVPECL | 50 Ω to V _{cc} - 2.0 VDC |
| Frequency Stability | 50 ppm Max. |
| Start-up Time | 10 mS Max. |
| Supply Voltage | 3.3 VDC ± 5% |
| Current | LVDS = 90 mA Max., LVPECL = 130 mA Max. |
| Linearity | 15% Max. |
| Pullability | See Table Below |
| Control Voltage | 1.65 VDC ± 1.5 VDC |
| Input Impedance | 50K Ω Min. |
| Operating | See Operating Temperature Table in Part Number Guide |
| Storage | -55° C to +125° C |



| Part Number Guide | | Sample Part Number: I617-1BC3H-155.520 | | | | |
|-------------------|-----------------------|----------------------------------------|--------------|------------|------------------|--------------|
| Package | Operating Temperature | Stability (in ppm) | Pullability | Output | Enable / Disable | Frequency |
| I617 | 1 = 0° C to +70° C | **D = ±15 | B = ±50 ppm | 8 = LVDS | H = Enable | -155.520 MHz |
| | 3 = -20° C to +70° C | A = ±25 | C = ±100 ppm | 9 = LVPECL | | |
| | 2 = -40° C to +85° C | B = ±50 | | | | |
| | | C = ±100 | | | | |

NOTE: A 0.01 μF bypass capacitor is recommended between V_{cc} (pin 6) and GND (pin 3) to minimize power supply noise.
 ** Not available for all temperature ranges.



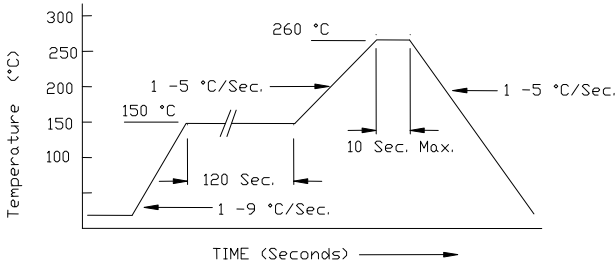
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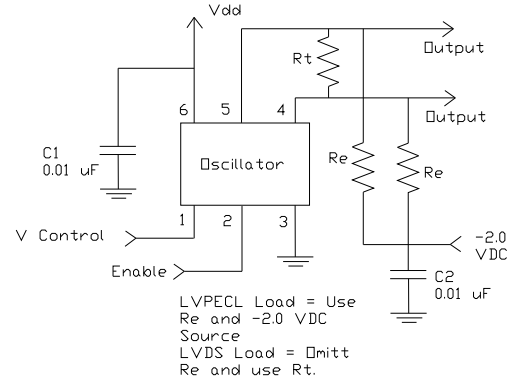
1617 Series

Pb Free Solder Reflow Profile:

Typical Application:



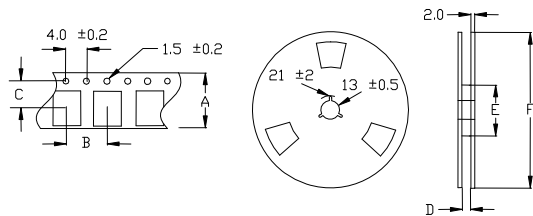
*Units are backward compatible with 240C reflow processes



Package Information:

MSL = N.A. (package does not contain plastic, storage life is unlimited under normal room conditions).
 Termination = e4 (Au over Ni over W base metalization).

Tape and Reel Information:



| Quantity per Reel | 1000 |
|-------------------|--------------|
| A | 16 +/- .3 |
| B | 8 +/- .2 |
| C | 7.5 +/- .2 |
| D | 17.5 +/- 1 |
| 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: ILSI and Date Code (YWW)
 Line 2: Frequency