

LVPECL

Voltage Controlled Crystal Oscillator

CVPD-037X Model

5x7 mm SMD, 3.3V, LVPECL

| | |
|---|---|
| Frequency Range: | 40.000 to 170.000 MHz |
| Operating Temperature Range: | -40°C to 85°C |
| Storage Temperature Range: | -45°C to 90°C |
| Input Voltage: | 3.3V ± 5% |
| Control Voltage: | 1.65V ± 1.5V |
| Input Current: | 56mA Max |
| Standby Current: | 800uA |
| Output: | PECL |
| Symmetry: | 45/55% Max @ zero crossing point |
| Rise/Fall Time: | 0.25nSec Typical, 0.5ns Max, (20% to 80%) |
| Pullability APR: | ±50ppm Min APR |
| Load: | 50 ohms (Vdd-2.0V) |
| Logic "1" Level: | 2.275 VDC Min |
| Logic "0" Level: | 1.680 VDC Max |
| Modulation BW: | 15 kHz Min |
| Input Impedance: | 5 Mohm Min |
| Enable Delay Time: | 2 ms Max |
| Disable Delay Time: | 200 ns Max |
| Phase Noise (Typical for 160 MHz): | |
| 10 Hz Offset: | -60 dBc/Hz |
| 100 Hz Offset: | -90 dBc/Hz |
| 1 kHz Offset: | -118 dBc/Hz |
| 10 kHz Offset: | -134 dBc/Hz |
| 100 kHz Offset: | -144 dBc/Hz |
| 1 MHz Offset: | -150 dBc/Hz |
| 10 MHz Offset: | -157 dBc/Hz |
| 40 MHz Offset: | -157 dBc/Hz |



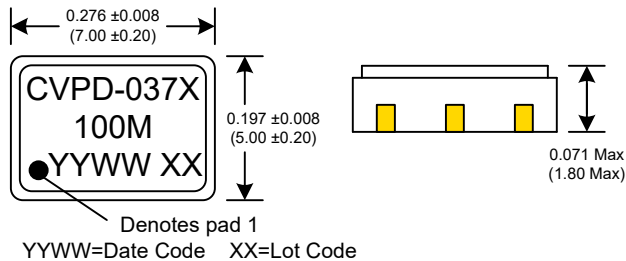
| Standard Frequencies (MHz) |
|----------------------------|
| 100.000 |
| 122.880 |
| 153.600 |
| 156.250 |

| | |
|-------------------------------|---|
| Mechanical: | |
| Shock: | MIL-STD-883, Method 2002, Condition B |
| Solderability: | MIL-STD-883, Method 2003 |
| Vibration: | MIL-STD-883, Method 2007, Condition A |
| Solvent Resistance: | MIL-STD-202, Method 215 |
| Resistance to Soldering Heat: | MIL-STD-202, Method 210, Condition I or J |
| Environmental: | |
| Thermal Shock: | MIL-STD-883, Method 1011, Condition A |
| Moisture Resistance: | MIL-STD-883, Method 1004 |

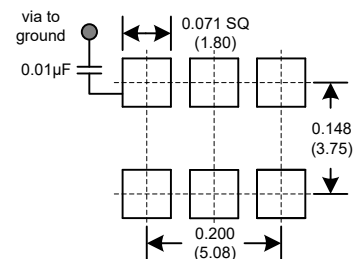
Part Number Example: CVPD-037X-100.000 = 3.3V, ±50ppmAPR, 100 MHz

Dimensions inches (mm)

All dimensions are Max unless otherwise specified.

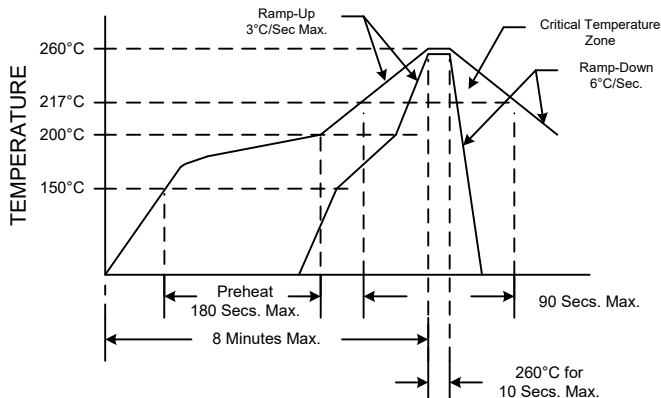


SUGGESTED PAD LAYOUT



0.01µF Bypass Capacitor Recommended

RECOMMENDED REFLOW SOLDERING PROFILE



NOTE: Reflow Profile with 240°C peak also acceptable.

| PIN | Connection |
|-----|-------------|
| 1 | Cont. Volt |
| 2 | E/D |
| 3 | GND |
| 4 | Output |
| 5 | Comp Output |
| 6 | Vcc |

| Enable/Disable | |
|-----------------------|------------|
| Function pin 2 | Output pin |
| Open or N/C | Active |
| "1" level 0.7×Vdd Min | Active |
| "0" level 0.3×Vdd Max | High Z |

Available on 16mm Tape and Reel in quantities of 1,000 pcs.

Rev: F
Date: 19-Jan-2017
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Specifications subject to change without notice.