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A DIVISION OF CRYSTEK CORPORATION

**C32xx 5x7mm SMD
HCMOS Clock Oscillator
5.0 Volts**



Model C32xx is a 1.544MHz to 106.250MHz HCMOS Clock Oscillator operating at 5.0Volts. The oscillator utilizes Fundamental or High Q Third Overtone crystal design providing very low Jitter and Phase Noise. No Sub-Harmonics are present in the Output Signal.



5x7mm SMD

Applications:

**Digital Video
SONET/SDH/DWDM
Storage Area Networks
Broadband Access
Ethernet, Gigabit Ethernet**



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| | |
|--|--|
| Frequency Range: | 1.544 to 106.250Mhz |
| Frequency Stability Options(ppm): | ±10, ±20, ±25, ±50, ±100 |
| Temperature Range: (standard) | 0°C to +70°C |
| (Option M) | -20°C to +70°C |
| (Option E) | -40°C to +85°C |
| Storage: | -55°C to 120°C |
| Input Voltage: | 5.0V ± 0.5V |
| Input Current: | 60mA Max |
| Output: | HCMOS/TTL |
| Symmetry: | 40/60 % Max @ 50% Vdd |
| (Option) | 45/55 % Max @ 50% Vdd |
| Rise/Fall Time: | 6nsec Max @ 20% to 80% Vdd |
| Logic: | "0"= 10% Vdd Max |
| | "1"= 90% Vdd Min. |
| Disable Time | 200nSec Max |
| Start-up Time | 1mSec Typ., 2mSec Max |
| Load: | 50pF/10TTL Max |
| Jitter RMS: | 12KHz~20MHz 0.5psec Typ., 1psec Max |
| Sub-harmonics: | None |
| Aging: | <3ppm 1st/yr, <1ppm every year thereafter |

PART NUMBER GUIDE

Example: C3292-44.736MHz
 Intermediate Temp: CM3292-44.736MHz
 Extended Temp: CE3292-44.736MHz

| Symmetry 40/60 % | |
|------------------|-----------|
| Part Number | Stability |
| C*3290 | ±100ppm |
| C*3292 | ±50ppm |
| C*3291 | ±25ppm |
| C*3298 | ±20ppm |
| C3297 | ±10ppm |

C = 0°C to 70°C
 *CM = -20°C to 70°C
 *CE = -40°C to 85°C

| Symmetry 45/55 % | |
|------------------|-----------|
| Part Number | Stability |
| C*3990 | ±100ppm |
| C*3992 | ±50ppm |
| C*3991 | ±25ppm |
| C*3998 | ±20ppm |
| C3997 | ±10ppm |

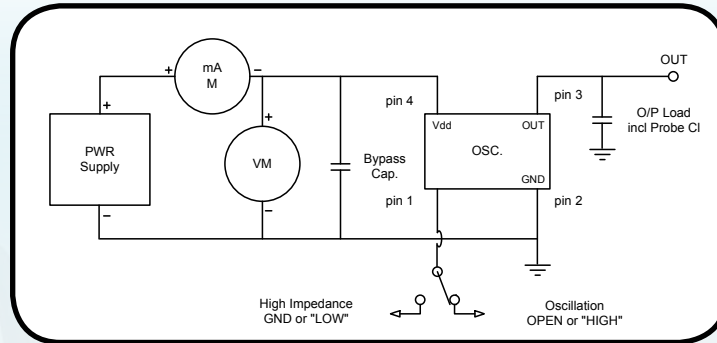


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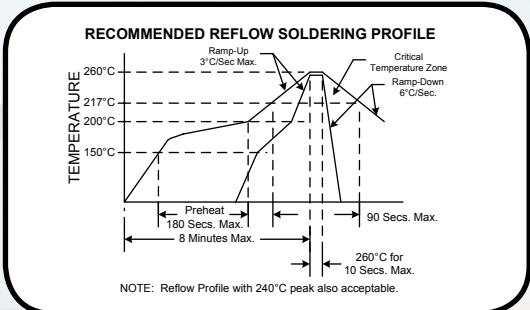
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- Mechanical:**
- Shock:** MIL-STD-883, Method 2002, Condition B
 - Solderability:** MIL-STD-883, Method 2003
 - Vibration:** MIL-STD-883, Method 2007, Condition A
 - Solvent Resistance:** MIL-STD-202, Method 215
 - Resistance to Soldering Heat:** 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



Denotes pad 1
XXX=Date Code XX=Lot Code

| Tri-State Function | |
|-----------------------|--------------|
| Pin #1 State | Output State |
| Open or N/C | Active |
| "1" level 0.7*Vcc Min | Active |
| "0" level 0.3*Vcc Max | High Z |

SUGGESTED PAD LAYOUT

0.01uF Bypass Capacitor Recommended