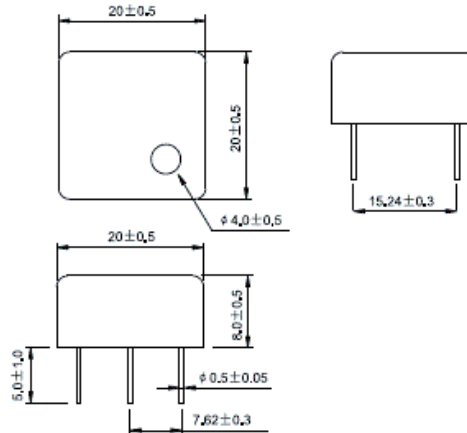


## CT20H VC / TCXO

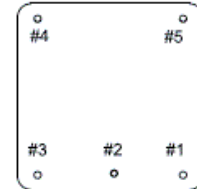
20.0 x 20.0 x 8.0mm  
1.200MHz to  
40.000MHz  
RoHS Compliant  
HCMOS / TTL  
3.3 or 5.0VDC  
10.000MHz to  
27.000MHz  
VC Option on Pin 3

## Mechanical Dimensions

Dimensions are in millimeters



Land Pattern



PIN CONNECTION

#1 V<sub>DD</sub>  
#2 OUTPUT  
#3 V<sub>C</sub> or GND  
#4 GND  
#5 GND

## Electrical Specifications

|                                                                                     |                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range                                                                     | 1.200MHz To 40.000MHz                                                                                                                                                                                    |
| Frequency Deviation                                                                 | ±5.0ppm or 10ppm minimum Over Control Voltage                                                                                                                                                            |
| Frequency Stability                                                                 | Vs. Operating Temp Rang: See Part Numbering Guide<br>Vs. Input Voltage (±5%) : ± 0.3ppm Max<br>Vs. Load (±10%): ± 0.3ppm Max                                                                             |
| Supply Voltage                                                                      | 3.3VDC ± 5% or 5.0VDC ± 5%                                                                                                                                                                               |
| Output Voltage<br>Logic High (V <sub>OH</sub> )<br><br>Logic Low (V <sub>OL</sub> ) | With TTL: 2.4V <sub>DC</sub> Min<br>With HCMOS: 90% of V <sub>DD</sub> Min<br>With TTL: 0.4V <sub>DC</sub> Max<br>With HCMOS: 10% of V <sub>DD</sub> Max                                                 |
| Load Drive Capability                                                               | 10 TTL Load or 15pF HCMOS Load (STD)                                                                                                                                                                     |
| Control Voltage (External)                                                          | 1.65V <sub>DC</sub> ± 1.65V <sub>DC</sub> (V <sub>DD</sub> : 3.3V <sub>DC</sub> ), 2.5V <sub>DC</sub> ± 2.0V <sub>DC</sub> (V <sub>DD</sub> : 5.0V <sub>DC</sub> )<br>(Positive Transfer Characteristic) |
| Internal Trim (Top of Can)                                                          | ±3ppm min                                                                                                                                                                                                |
| Input Current                                                                       | 1.200 to 27MHz: 25mA Max<br>27.001 to 40.000MHz : 40mA Max                                                                                                                                               |
| Rise / Fall Time                                                                    | 4nS Max                                                                                                                                                                                                  |
| Duty Cycle                                                                          | 50±10%                                                                                                                                                                                                   |
| Aging                                                                               | ±1ppm Per Year Max                                                                                                                                                                                       |

## Environmental & Mechanical

|                    |                                       |
|--------------------|---------------------------------------|
| Shock              | Mil-STD-883, Method 2002, Condition B |
| Solderability      | Mil-STD-883, Method 2003              |
| Solvent Resistance | Mil-STD-883, Method 215               |
| Vibration          | Mil-STD-883, Method 2007, Condition A |

## Part Numbering Guide

**Series**  
CT20H

**Tolerance / Stability**  
B = 1.0ppm  
C = 1.5ppm  
D = 2.0ppm  
E = 2.5ppm  
F = 5.0ppm

**Operating Temperature Range**  
2 = -0° to 55°C  
3 = -10°C to 60°C  
4 = -20°C to 70°C  
6 = -30°C to 85°C  
7 = -40°C to 85°C  
Not all temp ranges available with all stabilities

CT20H F 3 G 1 A -25.000MHz

**Center Frequency**  
9.600MHz to 40.000MHz

**Frequency Deviation**  
Blank = TCXO  
A = 10ppm  
B = 5ppm

**Pin Three Connection**  
1 = No Connect  
2 = Voltage Control

**Supply Voltage**  
H = 3.3VDC  
J = 5.0VDC

## Part Marking Guide

|         |                                                                                                         |
|---------|---------------------------------------------------------------------------------------------------------|
| Line #1 | CFP CT20H                                                                                               |
| Line #2 | XX.XXX M<br>XX.XXX = Frequency (5 Digits Max + Decimal)<br>M = Frequency Unit Of Measure (MHz)          |
| Line #3 | XX YY ZZ<br>XX = Crescent Manufacturing Identifier<br>YY = Last Two Digits of Year<br>ZZ = Week of Year |