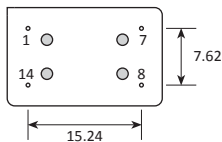
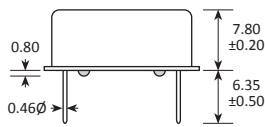


Pin	CONNECTION
1	Freq adjustment or Ground
7	Ground
8	Output
14	Supply



## Features

- ▶ Compact 14-pin DIL package (SMD optional)
- ▶ 12.0V supply voltage
- ▶ CMOS compatible output
- ▶ Very fast warmup
- ▶ Low power consumption
- ▶ Wide temperature range available

## Ordering Information

Product name + option codes + frequency  
 eg: **MCOCXO/AR1 10.0MHz** 0.2ppm 0~60°C  
**MCOCXO/TBV5 16.0MHz** 0.1ppm -20~70°C  
 Option code X (eg MCOCXO/X) denotes a custom spec.

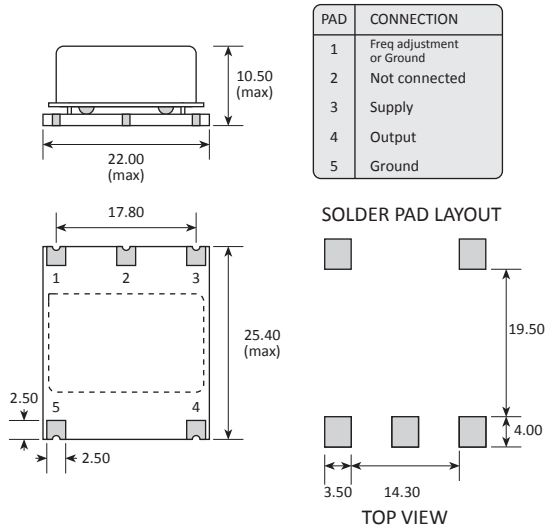
◆ Product is NOT designed to withstand 260°C reflow processing

## Specifications

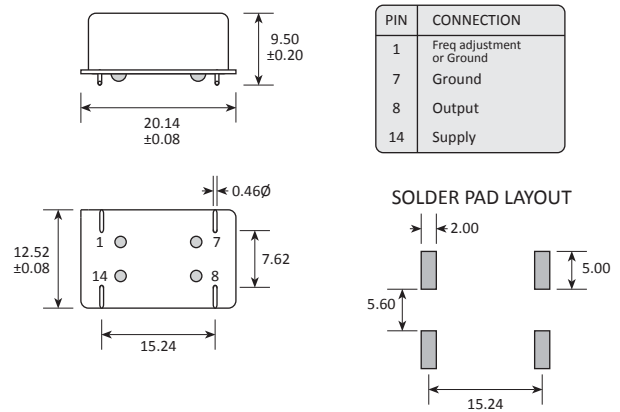
Parameters	Product	Option Codes
	MCOCXO	
<b>Frequency range:</b> 10.0kHz ~ 54.0MHz	■	
<b>Frequency stability:</b> ±0.5ppm max first year ±3.0ppm max in 10 years ±0.1ppm over $V_{DD}$ ±0.5V ±0.01ppm over 10% change in load	■ ■ ■ ■	
<b>Short term stability:</b> $5 \times 10^{-10}$ , $\tau$ 0.1 to 30s $5 \times 10^{-11}$ typ at 1s	■ ■	
<b>Temperature stability:</b> ±0.2ppm max, 0 to +60°C ±0.05ppm max, 0 to +60°C ±0.3ppm max, -20 to +70°C ±0.1ppm max, -20 to +70°C ±0.5ppm max, -40 to +85°C ±0.2ppm max, -40 to +85°C ±0.7ppm max, -55 to +85°C ±0.3ppm max, -55 to +85°C	□ □ □ □ □ □ □ □	A TA B TB C TC E TE
<b>Storage temperature range:</b> -55 to +125°C	■	
<b>Output waveform:</b> CMOS compatible '0' = +0.4V max, '1' = 4.5V min 40:60 max Rise/fall times 7ns max (no load)	■ ■ ■ ■	
<b>Load:</b> 3pF min, 47pF max	■	
<b>Start up time:</b> 5ms max	■	
<b>Frequency adjustment:</b> ±3.0ppm min Control voltage 0.5~5.0V, pin 1 Variable resistor 0~10kΩ, pins 1 to 7 None (int accuracy ±1.0ppm) None (int accuracy ±0.5ppm)	■ □ □ □ □	V5 R1 A B
<b>Supply voltage (<math>V_{DD}</math>):</b> +12.0V (±0.5V)	■	
<b>Input current:</b> 50mA max @ +25°C 80mA max @ -20°C	■ ■	
<b>Warm up time (secs):</b> current 250mA max @ 25°C to within ±0.1ppm @ 25°C	10 30	
<b>Phase noise (typ @ 10MHz):</b> -90dBc/Hz @ 10Hz -120dBc/Hz @ 100Hz -130dBc/Hz @ 1kHz -135dBc/Hz @ 10kHz	■ ■ ■ ■	
<b>Shock &amp; vibration:</b> 5,000G, 0.3ms ½-sine 10.0 ~ 2,000Hz, 20G	■ ■	
<b>Package:</b> Through hole 14 pin DIL SMD options 1 or 2	■ □	specify

■ Standard. □ Optional - Please specify required code(s) when ordering

## Option D1



## Option D2



## Soldering Profile

