



ISSUE 5; August 2014 - RoHS 2011/65/EU

Description

- Surface mount temperature compensated voltage controlled oscillator (TCVCXO) providing a high degree of frequency stability over a wide temperature range in a hermetically sealed ceramic package

Frequency Parameters

- Frequency 10.0MHz to 40.0MHz
- Frequency Stability $\pm 0.50\text{ppm}$
- Ageing $\pm 1\text{ppm}$ typical in 1st year @ 25°C

Electrical Parameters

- Supply Voltage $3.3\text{V} \pm 5\%$
- Supply Voltage Variation:
 $<30\text{MHz} \pm 0.3\text{ppm}$
 $30\text{MHz to } 40\text{MHz} \pm 0.4\text{ppm}$
- Load Variation: $\pm 0.2\text{ppm}$ (@ $15\text{pF} \pm 10\%$)
After Reflow: $\pm 1.0\text{ppm}$
- Current Draw (Typical): 3mA @ 20MHz

Frequency Adjustment

- Pulling $\pm 5\text{ppm min}$
- Control Voltage $1.65\text{V} \pm 1.0\text{V}$

Operating Temperature Ranges

- -40 to 85°C

Output Details

- Output Compatibility HCMOS
- Drive Capability 15pF nom

Environmental Parameters

- Shock: IEC 60068-2-27, Test Ea: 980m/s^2 acceleration for 6ms , 3 shocks in each of 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6, Test Fc, Procedure B4: 10Hz - 60Hz 1.5mm displacement, 60 - 2000Hz at 98.1m/s^2 , 30mins in 3 mutually perpendicular planes at 1 oct/min
- Solderability: MIL-STD-202, Method 208, Category 3
- Storage Temperature Range: -55 to 125°C

Manufacturing Details

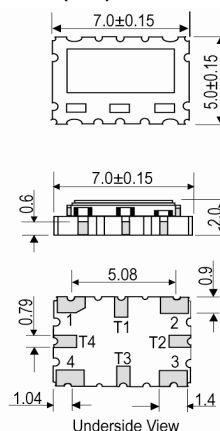
- Soldering: Suitable for Convection Reflow soldering. Peak temperature 260°C , 60sec max above 220°C
- Washing: Able to withstand aqueous washing

Ordering Information

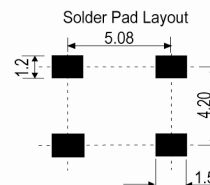
- Frequency*
- Model*
- Output
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Supply Voltage
- Example
 13.0MHz CFPT-126
HCMOS $\pm 0.5\text{ppm}$ -40 to 85°C 3.3V



Outline (mm)



Pad Connections
1. Voltage Control
2. GND
3. Output
4. +Vs
T1, T2, T3, T4,
Do Not Connect



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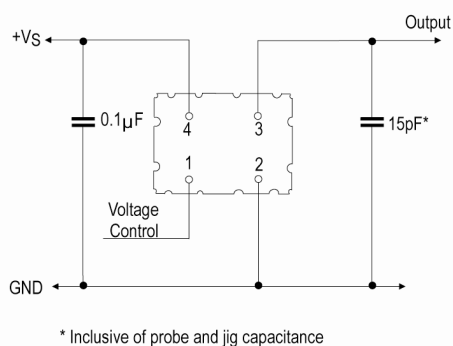
Compliance

- RoHS Status: Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): 1

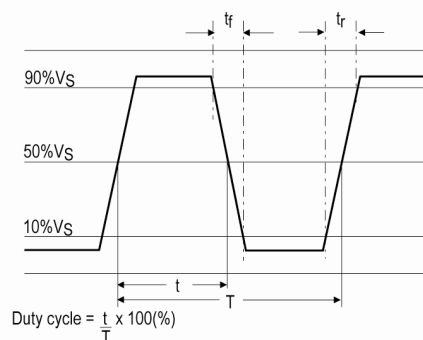
Packaging Details

- Pack Style: Bulk: Loose in bulk pack
Pack Size: 100
- Pack Style: Reel: Tape & reel in accordance with EIA-481-D
Pack Size: 1,000
- Pack Style: Cutt: Cut tape
Pack Size: 100

Test Circuit



Wave Form



Electrical Specification - maximum limiting values 3.3V ±5%

Frequency Min	Frequency Max	Temperature Range	Stability (min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
10.0MHz	10.0MHz	-40 to 85	±0.5	-	8	45/55
12.8MHz	12.8MHz	-40 to 85	±0.5	-	8	45/55
13.0MHz	13.0MHz	-40 to 85	±0.5	-	8	45/55
16.384MHz	16.384MHz	-40 to 85	±0.5	-	8	45/55
19.44MHz	19.44MHz	-40 to 85	±0.5	-	8	45/55
20.0MHz	20.0MHz	-40 to 85	±0.5	-	8	45/55
24.0MHz	24.0MHz	-40 to 85	±0.5	-	8	45/55
26.0MHz	26.0MHz	-40 to 85	±0.5	-	8	45/55
32.768MHz	32.768MHz	-40 to 85	±0.5	-	8	45/55
40.0MHz	40.0MHz	-40 to 85	±0.5	-	8	45/55

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