

# TC02-Series Specifications



**2.50L x 2.00W x 0.80H (mm)**

PDI *TC02-Series* Temperature Compensated Crystal Oscillator (TCXO) ensures a precise frequency under demanding circumstances. With ultra-low phase noise, low jitter, and excellent performance in high vibration environments this TCXO available, in both standard and custom frequencies. PDI provides fast sampling for your proto-typing needs, mass production capability, and competitive pricing.

ex) **TC—T—2—25000X—W—N—D—2—R—X\***

## ENABLE

**T** = Tri-State  
**O** = No/Connect

## FREQUENCY

**10000X-52000X** =  
10.000MHz –  
52.000MHz

## OUTPUT

**W** = Clipped Sine

## FREQUENCY STABILITY

**K** = +/-0.5  
**L** = +/-1.0  
**M** = +/-2.0  
**N** = +/-2.5  
**S** = Special

## OPERATING TEMPERATURE

**A** = 0 to +70°C  
**B** = -20 to +70°C  
**D** = -40 to +85°C  
**S** = Special

## SUPPLY VOLTAGE

**1** = 1.8  
**2** = 2.5  
**F** = 3.0  
**3** = 3.3

## PACKAGE

**R** = Tape & Reel

\* - for standard or assigned for customization.

Parameter		Supply Voltage <sup>*1</sup> Range (±5%)	Units
		1.8 to 3.3	V
Frequency Range <sup>*1</sup>		10.000000 to 52.000000	MHz
Frequency Stability <sup>*1</sup>	vs Temperature (Max.)	Per Option	ppm
	vs Supply Voltage (Max.)	±0.2	
	vs Load (Max.)	±0.2	
	vs Aging (Max. 1st year)	±1	
	Calibration (@ +25°C) 1 Hour After Reflow (Max.)	±2	
Temperature Range <sup>*1</sup>	Operating	Per Option	°C
	Storage	-55 to +125	
Supply Current (Maximum)	10.00000 to 25.999999 MHz	2.0	mA
	26.000000 to 52.000000 MHz	2.5	
Waveform		Clipped Sinewave	
Output (Minimum)	Peak to Peak	0.8	V
Load		10 kΩ//10pF	
Start Up Time (Maximum)		2.0	ms
Phase Noise (Typical) (For 26.0 MHz)	@ 100 Hz	-110	dBc/Hz
	@ 1 kHz	-132	
	@ 10 kHz	-147	
	@ 100KHz	-151	

\*1 - Not all Frequency/Temperature/Voltage combinations are available.

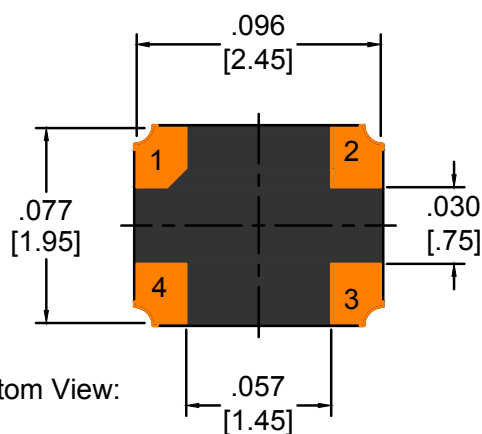
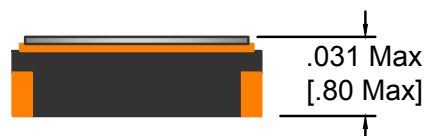
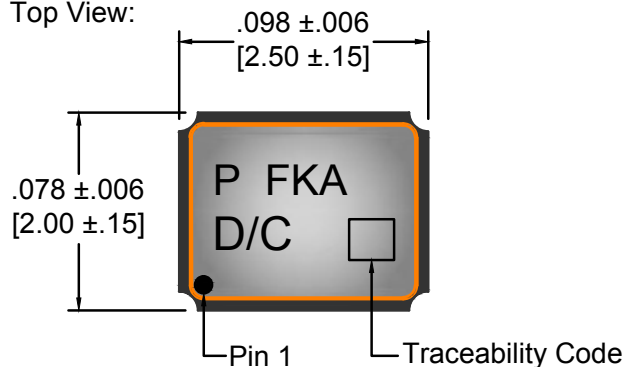
# TC02-Series 2.50 x 2.00 x 0.80 (mm)

## PACKAGE DIMENSIONS

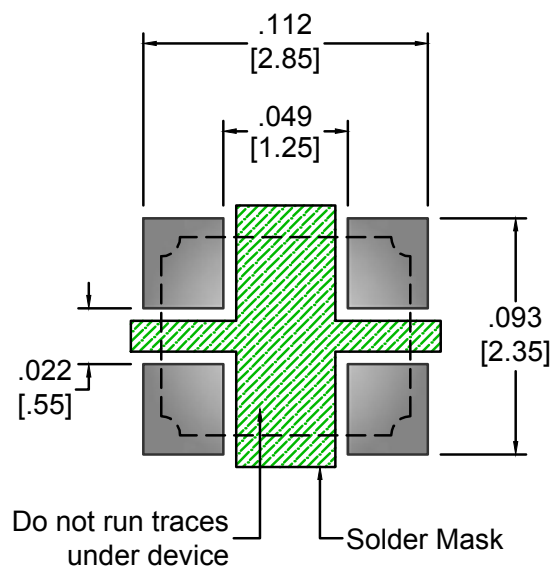
Decimal XXX =  $\pm .008$ , XX =  $\pm .02$  Metric [XXX =  $\pm .20$ ], [XX =  $\pm .50$ ]

PIN	CONNECTION
1	Tri-State or No Connect
2	Ground/Case
3	Output
4	Supply Voltage

Top View:



Bottom View:



Recommended Land Pattern  
(Top View)



### NOTES:

Terminals are Au.  
Other options are available, please consult factory.  
All product is supplied RoHS and REACH compliant.  
Product can be supplied on Tape and Reel, on reels of 1,000 units.  
Specifications subject to change without notice, last updated 4/1/13.

# TC02-Series 2.50 x 2.00 x 0.80 (mm)

1. Material: Black Conductive Polystyrene or equivalent.
2. 10 Sprocket Hole pitch cumulative tolerance of  $\pm .008$ .
3. Camber in compliance with EIA 481.
4. Empty pockets: Trailing end (Minimum) 200 mm. and Leading end (Minimum) 400 mm.
5. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.

