# 5x7 mm TCVCXO

## **T85B Series**

#### **Description:**

The T85B Temperature Compensated Voltage Controllable Crystal Oscillator (TCVCXO) Series products provide Stratum III level frequency stability with voltage controlled frequency adjust in a miniature 5 x 7 mm ceramic SMD package.



#### **Features:**

- Available in frequencies from 5 to 26 MHz with 10 MHz, 12.8 MHz, 25 MHz, and other frequencies as standards
- +/-4.6 ppm overall frequency stability including 20 years aging
- +/-5 ppm frequency pull range
- CMOS and Clipped Sine Wave available
- Standard 5 x 7 mm ceramic SMD package
- RoHS-6 / Lead-free compliant
- Tri-state control

Frequency Range, Operating Temperature, and Frequency Stability:

Frequency Range	Operating Temperature	Product Code	Frequency Stability	Stability (Overall)*	Product Code
	-20 to +70° C	С	+/- 0.28 ppm	+/- 4.6 ppm	Α
5. 00 141	-40 to +85° C	D	+/- 0.50 ppm	+/- 4.6 ppm	В
5 to 26 MHz			+/- 1.00 ppm	-+/-4.6 ppm	С

- Add +/- 1ppm setting calibration @ +25° C; +/- 0.6 ppm for supply and load variation; +/- 2.0 ppm for aging
- To achieve +/- 4.6 ppm overall stability or better
- For Frequency stabilities >= +/- 0.5 ppm with a clipped sinewave output the TV85B product should be selected
- +/- 0.28 ppm is not available from -40 to 85° C

**Aging:** (typical at 10MHz after 30 days continuous operation)

Frequency	Timeframe	Aging	Product Code
10 MHz	20 Years	+/- 2.5 ppm	N/A

#### **Phase Noise:**

Frequency	Offset	Phase Noise (Typ.)	Product Code
	1 Hz	- 60 dBc/Hz	
	10 Hz	- 90 dBc/Hz	
10.0 MHz	100 Hz	-120 dBc/Hz	N/A
10.0 WII 12	1 KHz	-140 dBc/Hz	N/A
	10 KHz	-155 dBc/Hz	
	100 KHz	-155 dBc/Hz	



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**Supply Voltage (Vs):** 

Power Supply (Vs)	+3.3 Vdc +/-10%	+5.0 Vdc +/-10%
Product Code	С	D

**Current Consumption:** 

	I	
	CMOS	Clipped Sine Wave
Supply Current	6 mA	3.5 mA

#### **Environmental:**

Storage Temperature	-55 to +125° C
Otorago romporataro	00 10 1 120 0

**Output Waveform:** 

	CMOS	Clipped Sir	ne Wave
HCMOS Output Levels (15pf load)	"0" < 0.1(Vs); "1" > 0.9(Vs)	Output Level 0	).8 V p-p min.
Rise / Fall Time	<10ns (10% to 90%)		
Duty Cycle	45 to 55% @ 50% Logic 1		
Product Code	Α	В	

**Pulling Range:** 

Tuning Range	None (TCXO)	+/- 5 ppm
Product Code	Α	В

<sup>\*</sup>Note: Only +/- 5 ppm minimum pull is available as a TCVCXO

**Ordering Options:** 

Orucing Opt	101151		1		,
Operating Temperature	Frequency Stability	Supply Voltage	Output Waveform	Pulling Range	Operating Frequency
С	Α	С	Α	Α	
D	В	D	В	В	xx.xxxxMHz
	С				
•		<u> </u>	1		

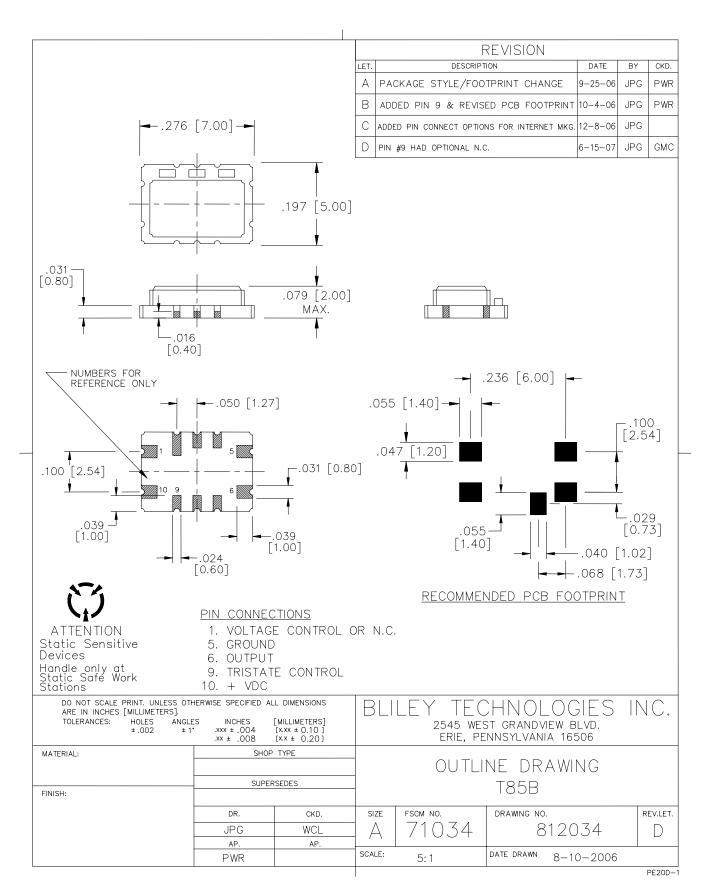
T85B C A C A B 10.0000MHz

## **Product Selection Code (refer to the above example):**

This part is RoHs compliant; -20 to +70 $^{\circ}$  C, +/- 0.28 ppm, 3.3 volt CMOS output with +/- 5 ppm pull, 10MHz operating frequency

#### **Outline Drawing & Pin Out:**

<sup>\*\*</sup> Not all combinations are available in this product.





# **5x7 mm TCVCXO**

# **T85B Series**

### **How to Order This Product:**

Contact Bliley Technologies with Product Selection Code from Ordering Options Section above.

Attn:	
Sales @ Bliley	
Fax: <b>814-833-2712</b>	
Phone: 814-838-3571	
Email: info@bliley.com	
Web: www.bliley.com	
Date:	
From:	
Name:	_ Company:
Fax:	_ Phone:
Email:	
Quantities to Quote:	Target Price: \$
Application / Reference #:	