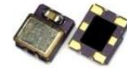


**Features**

- Fast Delivery
- Low Current Consumption
- Wide Frequency Range
- Low Jitter
- SMD Package (3.2x2.5mm)

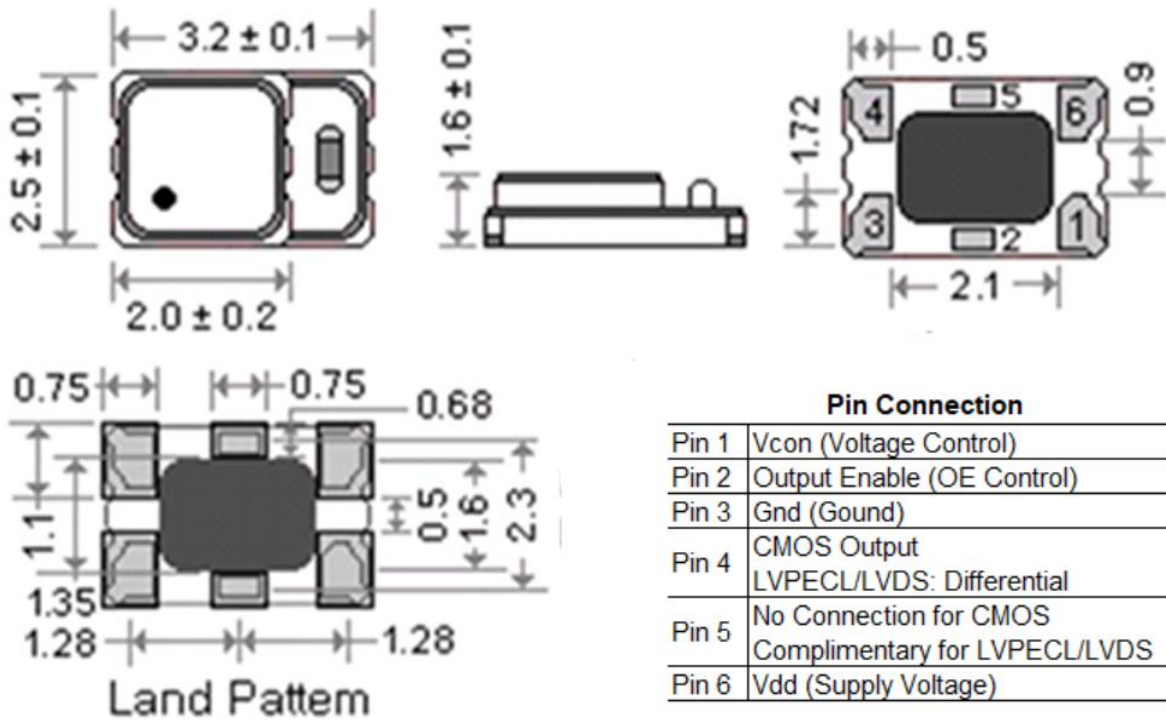
**Applications**

- Gigabit Ethernet / SDH/SONET
- Network Router/Switch
- Fibre Channel
- SAS, PCI Express Server
- Optical Transmission Equipment


**BT3225B\_Differential Specifications**

Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	-	2.5	-	V		
	-	3.3	-	V		
Supply Current	-	18	52	mA		
Frequency Range	10~ 245			MHz	LVC MOS/LVTTL	
	10~ 1450			MHz	LVPECL/LVDS	
Nominal Frequency	50, 125, 200, 156, 600, 800, 1000			MHz		
Initial Frequency Tolerance	-	-	±1.0	ppm	At shipment, nominal EFC, +25°C	
Freq. Stability Vs. Temp.	±1.0	±2.5	-	ppm	-30°C ~ +85°C, Standard	
	±1.0	±2.5	-	ppm	-40°C ~ +85°C, Customized	
LVC MOS /LVTTL	V <sub>OH</sub>	0.9VDD	-	-	V	Load=15pf
	V <sub>OL</sub>	-	-	0.1VDD	V	Load=15pf
	Duty Cycle	45	-	55	%	(V <sub>OH</sub> - V <sub>OL</sub> )/2
	Rise/Fall Edge	1.5	-	3.0	ns	Tr/Tf: 10% ↔ 90% waveform
	Load	-	-	15	pf	
LVPECL	V <sub>OH</sub>	0.6	-	1.03	V	
	V <sub>OL</sub>	1.6	-	1.85	V	
	Duty Cycle	45	-	55	%	(V <sub>OH</sub> - V <sub>OL</sub> )/2
	Rise/Fall Edge	-	0.2	0.5	ns	Tr/Tf: 20% ↔ 80% waveform
	Load	-	-	50	Ω	Into Vcc -2V or Thevenin
LVDS	V <sub>OH</sub>	-	1.4	1.6	V	
	V <sub>OL</sub>	0.9	1.1	-	V	
	Duty Cycle	45	-	55	%	(V <sub>OH</sub> - V <sub>OL</sub> )/2
	Rise/Fall Edge	-	0.2	0.4	ns	Tr/Tf: 20% ↔ 80% waveform
	Load	-	-	100	Ω	
Supply Sensitivity	-	-	±0.2	ppm	Vcc±5%	
Load Sensitivity	-	-	±0.2		Load±10%	
Aging/ First Year	-	-	±2.0		Standard	
Control Voltage Range	1.5 ± 1.0			V	Both VDD = 2.5V & 3.3V	
Frequency Turning Range	±8	-	-	ppm		
Tuning Slope	Positive					
Non-linearity	-	± 1	± 10	%		
Input Impedance	-	770	-	KΩ		

OE Control	Control Pin 2	0.7% of Vdd (Min.) or no connection to enable output. LVCMOS/LVTTL Level					
		0.3% of Vdd (Max.) to disable (High Impedence) output. LVCMOS/LVTTL Level					
	Output Enable Time	-	-	200	nS		
	Output Disable Time	-	-	50	nS		
Phase Noise	Offset	10Hz	100Hz	1KHz	10KHz	100KHz	Phase Jitter (12KHz~20MHz)
	125MHz	-51	-93	-111	-123	-125	0.73ps
	212.5MHz	-42	-87	-105	-115	-118	0.85ps
	312.5MHz	-49	-88	-107	-111	-114	0.88ps
Integrated Phase Jitter		-	0.8	-	pS	12KHz~20MHz	
		-	-	150	fS	1.875KHz~21MHz	

**Outline Dimension & Pin Connections**


\* Leave Pin1 Unconnected for TCXO.

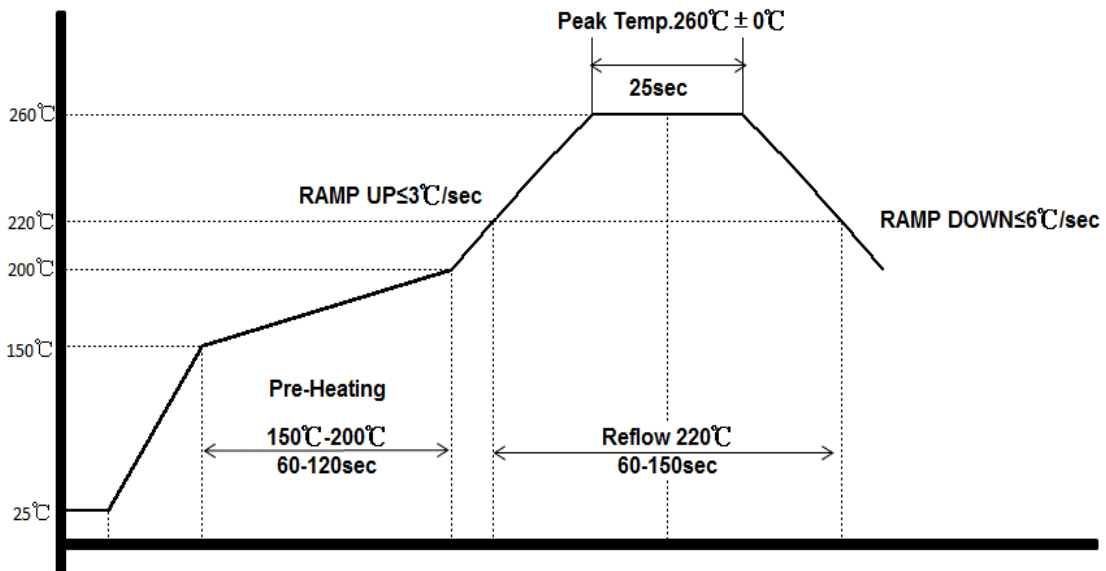
**Environmental Conditions**

Operating Temperature Range	-40°C ~ +85°C
Storage Temperature Range	-55°C ~ +150°C

**Reliability**

Parameter	Condition
Temperature Stress Test	IEC60068, GJB360B
Mechanical Stress Test	IEC60068, GJB360B
EMC Test (ESD)	IEC61000, JESD22
Solderability	EIA/JESD22-B102-C
Contact Pads	Gold over Nickel
RoHS	RoHS Directive 2011/65/EU Annex II Recasting 2002/95/EC

IR Reflow Profile



Ordering Guide

**BT 3225 B X XX XXX X X XX.XXX**

Product:  
TCXO

Outline:  
3.2mm x 2.5mm

Package:  
B: package B

Output:  
H: LVCMOS/LVTTL  
D: LVDS  
P: LVPECL

Supply Voltage:  
2: 2.5 Vdd  
3: 3.3 Vdd

Temp. Range:  
C:  $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$   
E:  $-30^{\circ}\text{C} \sim +85^{\circ}\text{C}$   
I:  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$   
F: Customized

Tri-State:  
N/A: No Tri-State  
T: With Tri-State

Frequency:  
xx MHz

Tuning Range:  
N: No Tuning  
A:  $\pm 5\text{ppm}$

Phase Noise:  
X:  $> -120\text{dBc}/\text{Hz}@1\text{kHz}$   
A:  $-120\text{dBc}/\text{Hz}@1\text{kHz}$   
B:  $-125\text{dBc}/\text{Hz}@1\text{kHz}$   
C:  $-130\text{dBc}/\text{Hz}@1\text{kHz}$   
D:  $-135\text{dBc}/\text{Hz}@1\text{kHz}$

Temp. Stability:  
306:  $\pm 3.0\text{ppm}$   
256:  $\pm 2.5\text{ppm}$   
206:  $\pm 2.0\text{ppm}$   
106:  $\pm 1.0\text{ppm}$

Example: BT3225BH3C506DN10

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