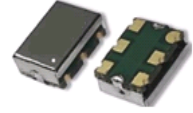


Features

- Fast Delivery
- Low Current Consumption
- Wide Frequency Range
- Low Jitter
- SMD Package (7x5mm)

Applications

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

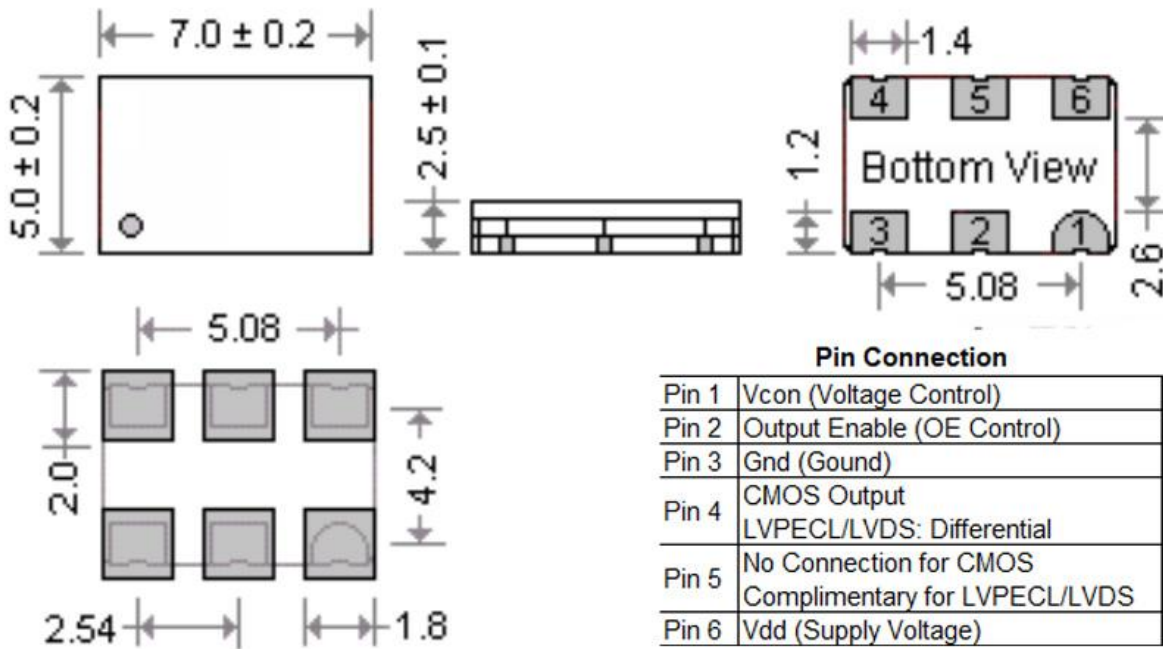

BT0507E Specifications

Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	-	2.5	-	V		
	-	3.3	-	V		
Supply Current	22	-	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.	-	±2.5	-	ppm	-30°C ~ +85°C, Standard	
	±1.0	±2.5	-	ppm	-40°C ~ +85°C, Customized	
LVC MOS /LVTTL	V _{OH}	0.9VDD	-	-	V	Load=15pf
	V _{OL}	-	-	0.1VDD	V	Load=15pf
	Duty Cycle	45	-	55	%	(V _{OH} - V _{OL})/2
	Rise/Fall Edge	1.5	-	3.0	ns	Tr/Tf: 10% ↔ 90% waveform
	Load	-	-	15	pf	
LVPECL	V _{OH}	0.6	-	1.03	V	
	V _{OL}	1.6	-	1.85	V	
	Duty Cycle	45	-	55	%	(V _{OH} - V _{OL})/2
	Rise/Fall Edge	-	0.2	0.5	ns	Tr/Tf: 20% ↔ 80% waveform
	Load	-	-	50	Ω	Into Vcc -2V or Thevenin
LVDS	V _{OH}	-	1.4	1.6	V	
	V _{OL}	0.9	1.1	-	V	
	Duty Cycle	45	-	55	%	(V _{OH} - V _{OL})/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

Outline Dimensions: mm



Land Pattern

*Leave Pin1 unconnected for TCXO

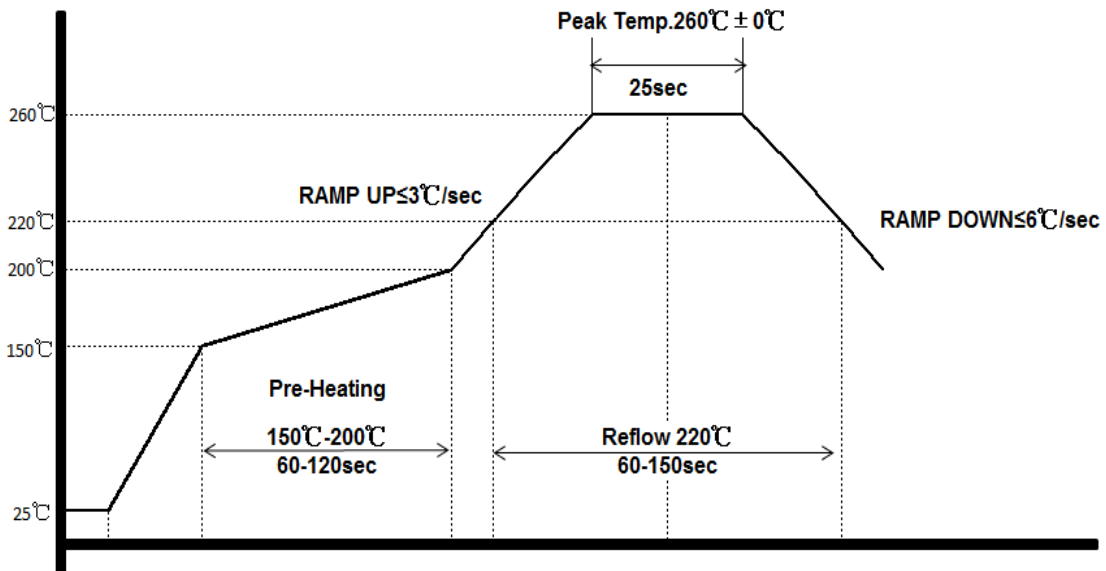
Environmental Conditions

Operating Temperature Range	-40°C ~ +85°C
Storage Temperature Range	-55°C ~ +125°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 0507 E X XX XXXX X XX.XXX

Product:
TCXO

Outline:
7.0mm x 5.0mm

Package:
E: packageE

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

Supply Voltage:
2: 2.5 Vdd
3: 3.3 Vdd

Temp. Range:
C: -20°C ~ +70°C
E: -30°C ~ +85°C
I: -40°C ~ +85°C
F: Customized

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

Frequency:
xx MHz

Tuning Range:
N: No Tuning
A: ±5ppm

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

Temp. Stability:
306: ±3.0ppm
256: ±2.5ppm
206: ±2.0ppm
106: ±1.0ppm

Example: BT0507EH3C206CN10

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