

Features

- Ultra Stable
- Wide Temperature Range
- SMD Package(7.0×5.0mm)

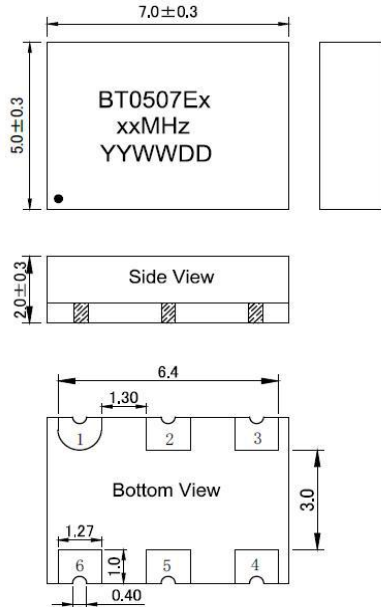
Applications

- Base Stations
- Instrumentations
- Synthesizer
- SDH/SONET
- Medical Electronics

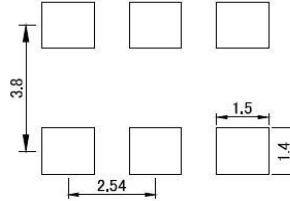

BT0507E Specifications

Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	-	3.3	-	V	Vcc±5%	
	-	5	-	V	Vcc±5%	
Supply Current	-	-	15	mA	-40°C~+85°C	
	-	-	80	mA		
Frequency Range	10~60			MHz		
Nominal Frequency	10,20,40,50			MHz		
Initial Frequency Tolerance	±0.50	±1.0	±2.0	ppm	At shipment, nominal EFC, +25°C	
Freq. Stability Vs. Temp.	±0.28	-	±2	ppm	-40°C~+85°C	
	±0.28	±0.5	±2.0	ppm	-50°C~+85°C	
	±0.28	±0.5	±2.0	ppm	-55°C~+85°C	
	±0.50	±1.0	±2.0	ppm	-60°C~+85°C	
HCMOS	V _{OH}	2.4	-	-	V	HCMOS Output, Load=15pf
	V _{OL}	-	-	0.4	V	HCMOS Output, Load=15pf
	Duty Cycle	45	-	55	%	(V _{OH} - V _{OL})/2
	Rise/Fall Edge	-	-	6	ns	HCMOS Output, Load=15pf
	Load	-	-	15	pf	
Clipped Sine Wave	Output Level	0.8	-	-	Vp-p	
	Load	10kΩ//10pF				
Sine Wave	Output Level	7	-	-	dbm	
	Harmonious			-30	dBc	
	Spurious			-70	dBc	
	Load	50ohm				
RMS Jitter(By E5052B)	-	-	1.3	ps	12KHz~5MHz	
Supply Sensitivity	-	-	±0.1	ppm	Vcc±5%	
Load Sensitivity	-	-	±0.2		Load±5%	
Aging/ First Year	-	-	±1.0		Standard	
SSB Phase Noise @10MHz	-	-	-110	dBc/Hz	Offset 10Hz	At +25°C
	-	-	-130		Offset 100Hz	
	-	-	-150		Offset 1kHz	
	-	-	-155		Offset 10kHz	
	-	-	-155		Offset 100kHz	
Control Voltage Range	1.5 ± 1.0			V		
Frequency Tuning Range	±5	-	±12	ppm		
Tuning Slope	positive					
Non-linearity	-	-	10	%		
Input impedance	100	-	-	KΩ		
Phase Noise @1KHz						
Frequency Range	<-125dBc	<-130dBc	<-135dBc	<-140dBc	○=Available X= Not Available	
10MHz	○	○	○	○		
12.8MHz~20MHz	○	○	○	X		
20.48MHz~38.4MHz	○	○	X	X		
≥40MHz	○	X	X	X		
Environmental Conditions						
Operating Temperature Range	-60°C~+85°C					
Storage Temperature Range	-55~+125°C					

Outline Dimension & Pin Connections

Package E

Pin Connections

Pin1	Vcon/NC
Pin2	OE/NC
Pin3	GND
Pin4	Output
Pin5	NOutput/NC
Pin6	Vcc

Recommended Land Pattern


Maximum Ratings

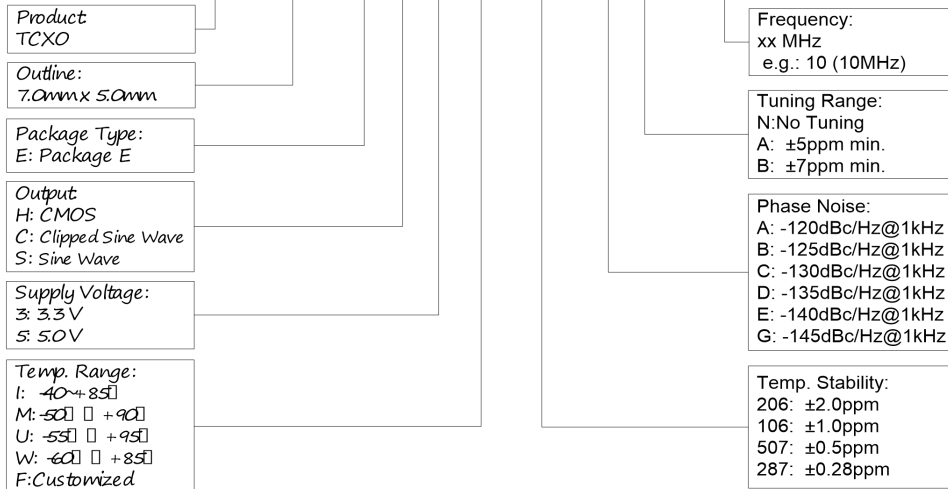
Parameter	Symbol	Rating
Supply Voltage	Vdd	-0.5V / 6V
Control Voltage	Vcon	0V / 3V
ESD, HBM/CDM/MM		4KV/ 2KV/ 200V

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

Ordering Guide

BT 0507 E X X X XXX X X XX.XX



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