

Features

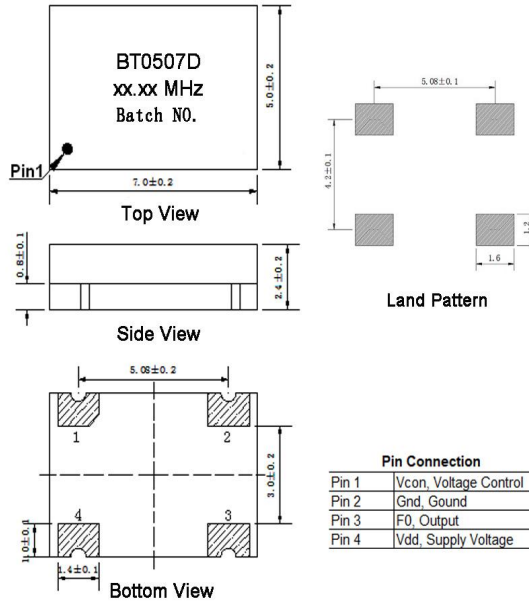
- Ultra Stable
- Low Phase Noise Available
- SMD Package (7.0×5.0mm)
- Provide Stratum III Level Frequency Stability

Applications

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

BT0507D(L) Specifications

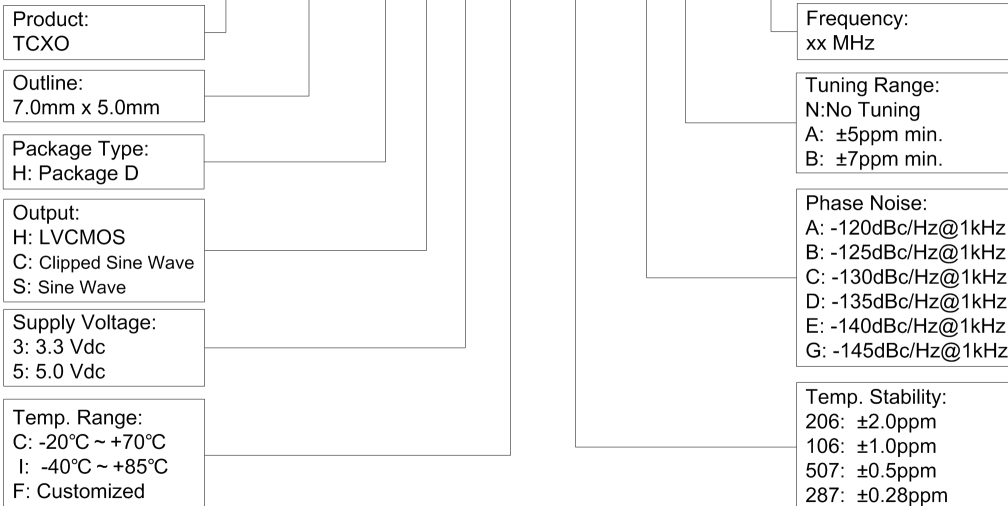
Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	-	3.3	-	V		
	-	5	-	V		
Supply Current	-	-	15	mA		
Frequency Range	10~ 50			MHz		
Nominal Frequency	10, 12.8, 20, 25, 26, 30.72, 40, 50			MHz		
Initial Frequency Tolerance	-	-	±1.0	ppm	At shipment, nominal EFC, +25°C	
Freq. Stability Vs. Temp.	±0.28	-	±2	ppm	-40°C ~ +85°C	
CMOS	V _{OH}	2.4	-	V	CMOS Output, Load=15pf	
	V _{OL}	-	-	0.4	V	CMOS Output, Load=15pf
	Duty Cycle	45	-	55	%	(V _{OH} - V _{OL})/2
	Rise/Fall Edge	-	-	6	ns	CMOS Output, Load=15pf
	Load	-	-	10	pf	
Clipped Sine Wave	Output Level	0.8	-	V _{p-p}		
	Load	10KΩ//10pF				
Sine Wave	Output Level	0	-	dBm		
	Harmonics	-	-	-30	dBc	
	Spurious	-	-	-70	dBc	
	Load	-	50	Ω	90%~10% V _{dd}	
Supply Sensitivity	-	-	±0.2	ppm	V _{cc} ±5%	
Load Sensitivity	-	-	±0.2		Load±10%	
Aging/ Day	-	-	±0.02			
Aging/ First Year	-	-	±1.0			
SSB Phase Noise @40MHz	-	-	-90	dBc/Hz	Offset 10Hz	At +25°C (Low Phase Noise Available, Contact us.)
	-	-	-115		Offset 100Hz	
	-145	-	-135		Offset 1kHz	
	-	-	-145		Offset 10kHz	
	-	-	-150		Offset 100kHz	
Control Voltage Range	1.65± 1.65			V	V _s =3.3Vdc	
	2.5 ± 2.5			V	V _s =5.0Vdc	
Frequency Turning Range	±8	-	-	ppm		
Tuning Slope	Positive					
Non-linearity	-	-	10	%		
Input Impedance	100	-	-	KΩ		
Environmental Conditions						
Operating Temperature Range	-40°C ~ +85°C					
Storage Temperature Range	-55°C ~ +125°C					

Outline Dimension & Pin Connections
Package D

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 D X X X XXX X X XX.XX

Example: BT0507DH3C287CN20