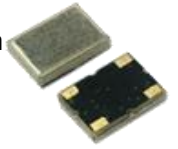


Features

- High frequency & Low Noise
- SMD Package (7.0×5.0mm)
- Fast Warming-up

Applications

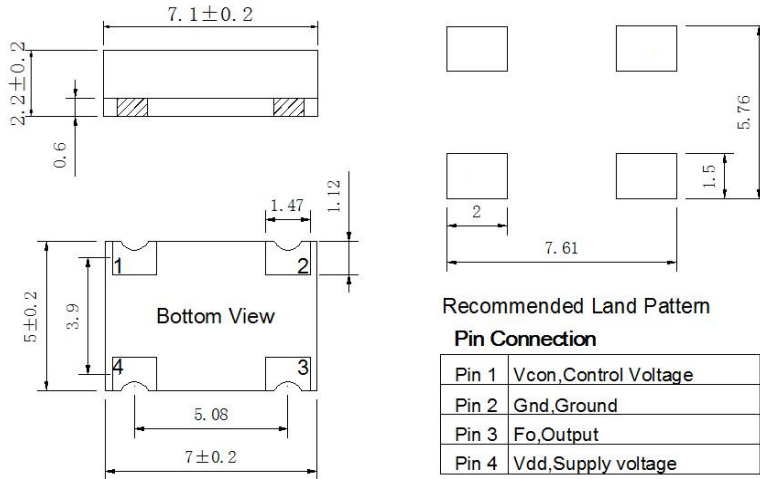
- Low phase noise signal source
- Wireless Communication System
- Low jitter RF Communication
- GNSS


BV0507D Specifications

Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	3.15	3.3/5	6	V		
Supply Current	20	–	28	mA		
Frequency Range	40 ~ 150			MHz		
Nominal Frequency	80;100;120;122.88			MHz		
Freq. Stability Vs. Temp.	±10	±12	±15	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	–	–	3	ns	CMOS Output, Load=15pf
	Load	–	–	15	pf	
RMS Jitter(By E5052B)	–	–	1.3	ps	12KHz~5MHz	
Supply Sensitivity	–	–	±0.1	ppm	V _{cc} ±5%	
Load Sensitivity	–	–	±0.2		Load±5%	
Aging/ First Year	±0.3	–	±1.0		Standard	
SSB Phase Noise @100MHz	–	-75	-70	dBc/Hz	Offset 10Hz	At +25°C
	–	-110	-105		Offset 100Hz	
	–	-140	-135		Offset 1kHz	
	–	-159	-155		Offset 10kHz	
	–	-166	-160		Offset 100kHz	
Control Voltage Range	1.5±1.5			V		
Frequency Turning Range	±18	±20	±25	ppm	At +25°C	
Tuning Slope	positive					
Non-linearity	–	–	10	%		
Environmental Conditions						
Operating Temperature Range	-40°C~+85°C					
Storage Temperature Range	-55°C ~ +125°C					

Outline Dimension & Pin Connections

Package D:



Note: Leave pin 1 unconnected if Vcon is not used.

Maximum Ratings

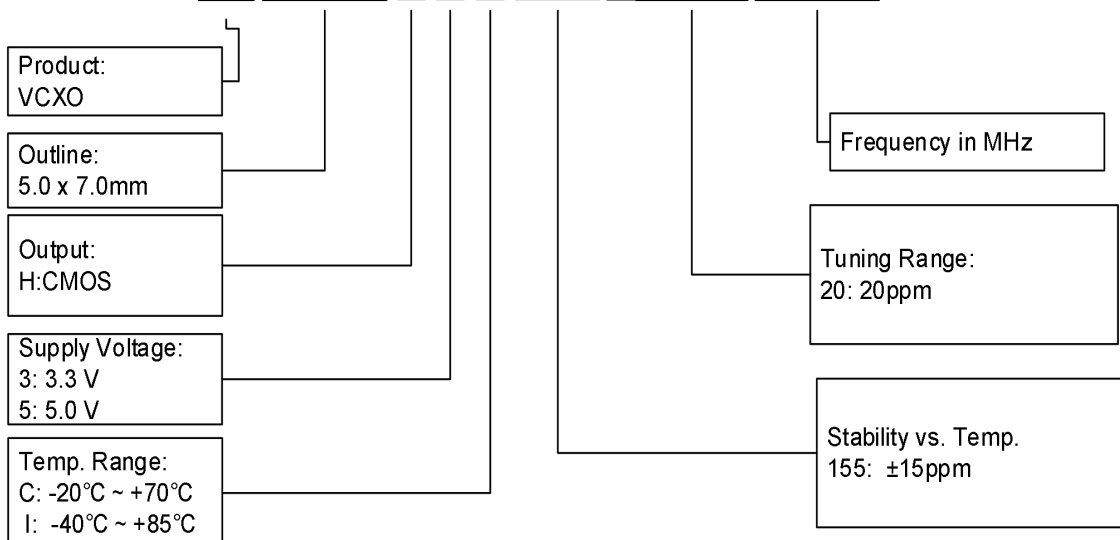
Parameter	Symbol	Rating
Supply Voltage	Vdd	-0.5V / 6V
Control Voltage	Vcon	0V / 3V
ESD, HBM/CDM/MM		4KV/ 2KV/ 200V

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

BV 0507D X X X XXX XXXXX XX.XX



Example: BV0507DH5I155X010N100