

**Features**

- High frequency & Low Noise
- SMD Package (7.0×5.0mm)
- Quick Warm-up

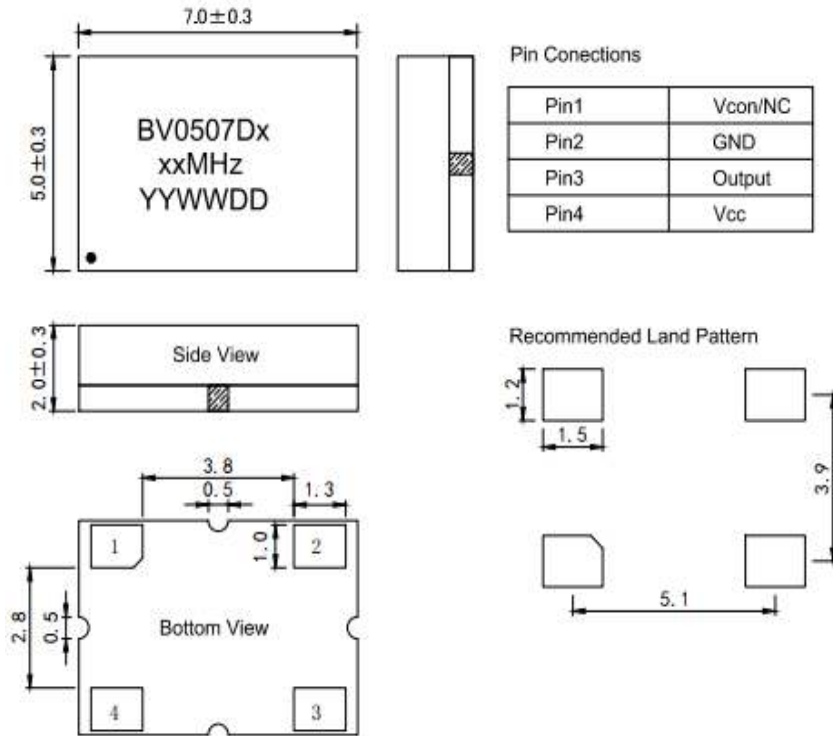
**Applications**

- Low vibration RF Communication
- Wireless Communication
- Low Phase Noise Signal Resource
- SDH/SONET
- GNSS


**BV0507D Specifications**

Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	–	3.3	–	V	V <sub>CC</sub> ±5%	
	–	5	–	V	V <sub>CC</sub> ±5%	
Supply Current	20	–	30	mA		
Frequency Range	10 ~ 156.52			MHz		
Nominal Frequency	40,80, 100, 120, 122.88			MHz		
Freq. Stability Vs. Temp.	±10	±12	±15	ppm	-40°C~+85°C	
CMOS	V <sub>OH</sub>	2.4	–	–	V	CMOS Output, Load=15pf
	V <sub>OL</sub>	–	–	0.4	V	CMOS Output, Load=15pf
	Duty Cycle	45	–	55	%	(V <sub>OH</sub> - V <sub>OL</sub> )/2
	Rise/Fall Edge	–	–	3	ns	CMOS Output, Load=15pf
	Load	–	–	15	pf	
RMS Jitter(By E5052B)	20	–	45	fs	12KHz~5MHz	
Supply Sensitivity	–	–	±0.1	ppm	V <sub>CC</sub> ±5%	
Load Sensitivity	–	–	±0.2		Load±5%	
Aging/ First Year	±0.3	–	±1.0		Standard	
SSB Phase Noise @100MHz	–	-80	-75	dBc/Hz	Offset 10Hz	At +25°C
	–	-112	-110		Offset 100Hz	
	–	-142	-140		Offset 1kHz	
	–	-158	-155		Offset 10kHz	
	–	-160	-158		Offset 100kHz	
Control Voltage Range	0~3.3			V		
Frequency Turning Range	±20	±30	±40	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:**

**Pin Connections**

Pin1	Vcon/NC
Pin2	GND
Pin3	Output
Pin4	Vcc

### 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 X XXXX XX.XX

Product:  
VCXO

Outline:  
7.0 × 5.0mm

Output:  
H: CMOS

Supply Voltage:  
3: 3.3 V  
5: 5.0 V

Temp. Range:  
C: -20°C ~ +70°C  
I: -40°C ~ +85°C

Frequency:  
xx MHz  
e.g.: 100 (100MHz)

Tuning Range:  
XXXN: XXX ppm Min.  
eg: 020N

Phase Noise:  
C: -130dBc/Hz@1kHz  
D: -135dBc/Hz@1kHz  
E: -140dBc/Hz@1kHz

Stability vs. Temp.  
155: ±15ppm

**Example:** BV0507DH3I155E020N100