

Features

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

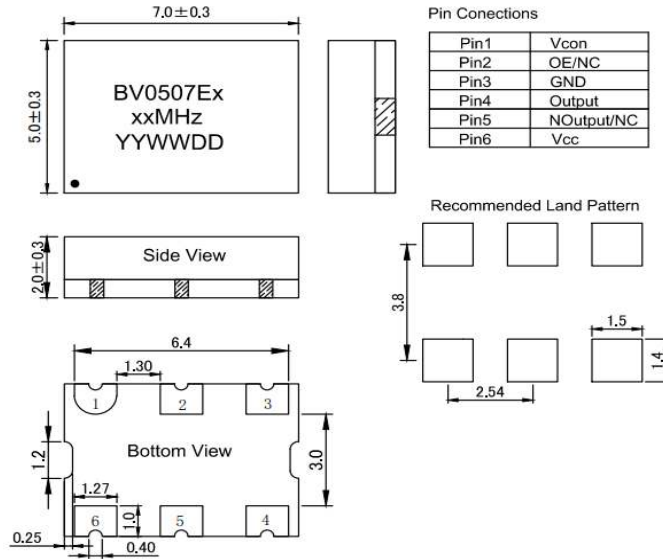
Applications

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


BV0507E Specifications

Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	–	3.3	–	V	V _{cc} ±5%	
	–	5	–	V	V _{cc} ±5%	
Supply Current	20	–	80	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	
LVPECL	V _{OH}	1.86	–	2.11	V	
	V _{OL}	1.06	–	1.31	V	
	Duty Cycle	45	–	55	%	(V _{OH} - V _{OL})/2
	Rise/Fall Edge	–	0.2	1	ns	
	Load	–	–	50	pf	
LVDS	V _{pp}	250	350	450	mV	
	V _{os}	1.125.	1.25	1.375	V	
	Duty Cycle	45	–	55	%	(V _{OH} - V _{OL})/2
	Rise/Fall Edge	–	0.2	1	ns	Tr/Tf:20%←→80% waveform
	Load	–	–	100	Ω	
RMS Jitter(By E5052B)@100MHz	200	–	700	fs	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	–	-78	-75	dBc/Hz	Offset 10Hz	At +25°C
	–	-112	-110		Offset 100Hz	
	–	-140	-135		Offset 1kHz	
	–	-150	-145		Offset 10kHz	
	–	-155	-150		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



Maximum Ratings

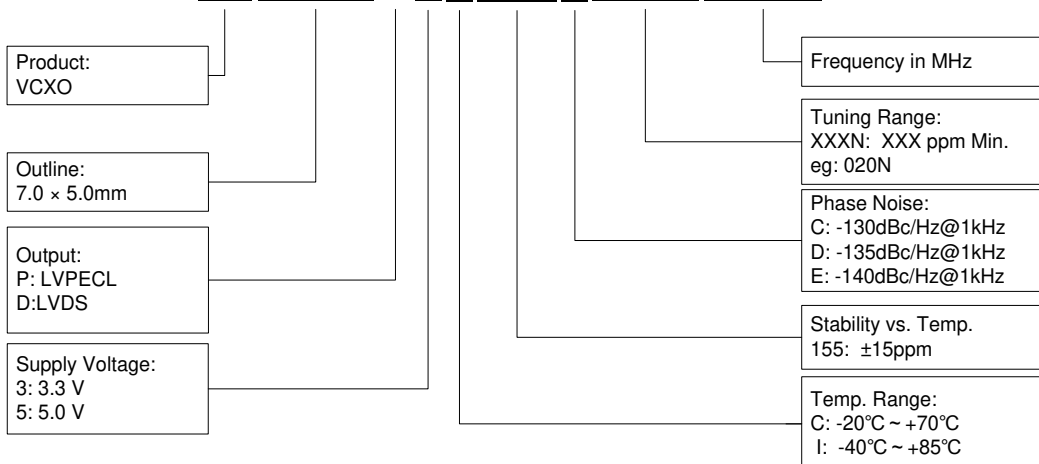
Parameter	Symbol	Rating
Supply Voltage	Vdd	-0.5V / 6V
Control Voltage	Vcon	0V / 3V
ESD, HBM/CDM/MM		4KV/ 2KV/ 200V

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 0507E XXXXXXXXXXXXXX.XX



Example: BV0507DH3I155D020N100