

Features

- High Stability
- Wide Temperature Range
- Fast Warming-up
- DIP Package(20mm*12mm)

Applications

- Base Stations
- Instrumentations
- Synthesizer
- Medical Electronics


BO1220H Series Specifications

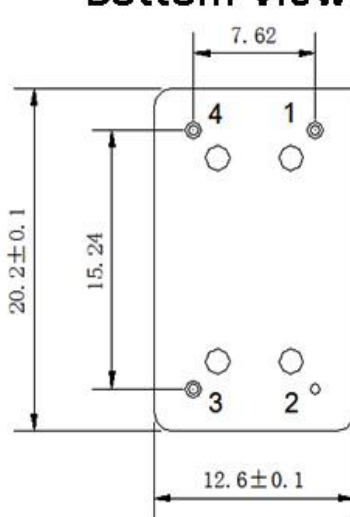
Parameter	Value			Unit	Condition	
	Min.	Typ.	Max.			
Supply Voltage	-	5.0	-	V		
	-	12.0	-	V		
Power Consumption	-	-	3.0	W	During Warming-up	
	-	-	1.5	W	Steady at +25°C & still air	
Frequency Range	50 ~ 120			MHz		
Nominal Frequency	80,100			MHz		
Initial Frequency Tolerance	-	-	±300	ppb	At shipment, nominal EFC	
Freq. Stability Vs. Temp.	±100	-	±200	ppb	-20°C ~ +70°C	
	±100	-	±300	ppb	-40°C ~ +70°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	-	15	-	pf	
Sine Wave	Output Level	7	-	-	dBm	
	Harmonious	-	-	-30	dBc	
	Spurious	-	-	-70	dBc	
	Load	-	50	-	Ω	
Warm-up Time	-	-	5	Min	At +25°C, with accuracy of ±100ppb	
Supply Sensitivity	-	-	±10	ppb	V _{cc} ±5%	
Load Sensitivity	-	-	±10		Load±5%	
Aging per Day	-	-	±2		After 30 days of operation	
Aging per Year	-	-	±200		After 30 days of operation	
SSB Phase Noise @100MHz	-	-	-85	dBc/Hz	Offset 10Hz	At +25°C
	-	-	-115		Offset 100Hz	
	-	-	-145		Offset 1kHz	
	-	-	-155		Offset 10kHz	
	-	-	-155		Offset 100kHz	
Control Voltage Range	0	-	5	V		
Frequency Turning Range	±0.5	-	±2.0	ppm		
Tuning Slope	Positive					
Environmental Conditions						
Operating Temperature Range	-55°C~+85°C					
Storage Temperature Range	-55°C~+125°C					

Reliability

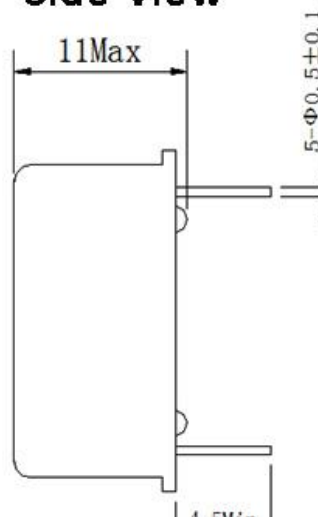
Parameter	Condition
Temperature Stress Test	IEC60068, GJB360B
Mechanical Stress Test	IEC60068, GJB360B
EMC Test (ESD)	IEC61000, JESD22
Solderability	EIA/JESD22-B102-C
RoHS	RHOS Directive 2011/65/EU Annex II Recasting 2002/95/EC

Outline Dimension & Pin Connections

Bottom View



Side View



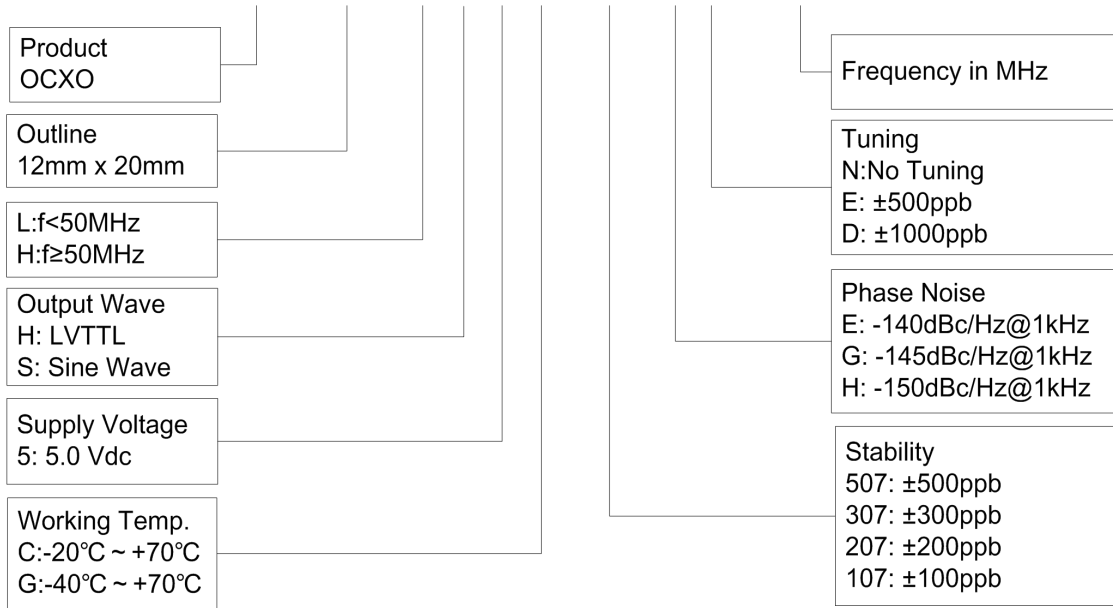
Pin Connections

Pin	Symbol	Description
Pin1	Vcon	Control Voltage
Pin2	GND	Ground, Case
Pin3	Fout	Output
Pin4	Vdd	Power Supply

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

Ordering Guide

BO 1220 H X X X X X X X X X X X X



Example: BO1220HS1C507HN100