

**Features**

- Ultra Stable
- Wide Temperature Range
- Fast Warming-up
- DIP Package(36mm\*27mm)

**Applications**

- Base Stations
- Instrumentations
- Medical Electronics


**BO2736L Specifications**

Parameter	Value			Unit	Condition	
	Min.	Typ.	Max.			
Supply Voltage	-	5.0	-	V		
	-	12.0	-	V		
Power Consumption	-	-	5.0	W	During Warming-up	
	-	-	1.5	W	Steady at +25°C & still air	
Frequency Range	10 ~ 40			MHz		
Nominal Frequency	10			MHz		
Initial Frequency Tolerance	-	-	±100	ppb	At shipment, nominal EFC	
Freq. Stability Vs. Temp.	±1	-	±10	ppb	-20°C ~ +70°C	
	±3	-	±10	ppb	-40°C ~ +70°C	
	±5	-	±20	ppb	-40°C ~ +85°C	
	-	-	±50	ppb	-55°C ~ +85°C	
Sine Wave	Output Level	7	-	dBm		
	Harmonics	-	-	-35	dBc	
	Spurious	-	-	-70	dBc	
	Load	-	50	-	Ω	
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	-	-	6	ns	CMOS Output, Load=15pf
	Load	-	15	-	pf	
Short-term Stability(1S)	-	-	5×10 <sup>-12</sup>		Test after 15 Min.	
Timing Accuracy	-	-	24	us	Test after 24 Us.	
Warm-up Time	-	-	10	Min	At +25°C, with accuracy of ±5ppb	
Supply Sensitivity	-	-	±5	ppb	V <sub>cc</sub> ±5%	
Load Sensitivity	-	-	±5		Load±5%	
Aging per Day	-	-	±0.5		After 30 days of operation	
Aging per Year	-	-	±50		After 30 days of operation	
SSB Phase Noise @10MHz	-	-	-130	dBc/Hz	Offset 10Hz	
	-	-	-150		Offset 100Hz	
	-	-	-165		Offset 1kHz	
	-	-	-170		Offset 10kHz	
	-	-	-170		Offset 100kHz	
Control Voltage Range	0	-	5	V		
Frequency Turning Range	±0.5	-	±2.0	ppm		
Tuning Slope	Positive					

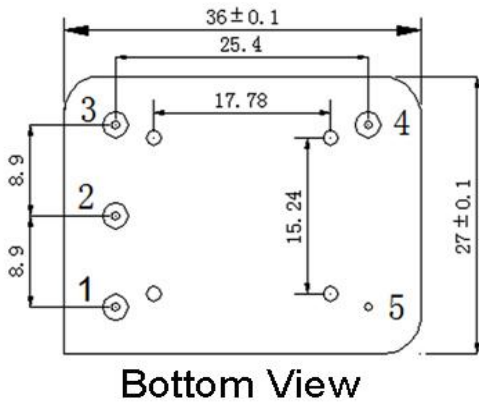
**Environmental Conditions**

Operating Temperature Range	-55°C~+85°C
Storage Temperature Range	-55°C~+125°C

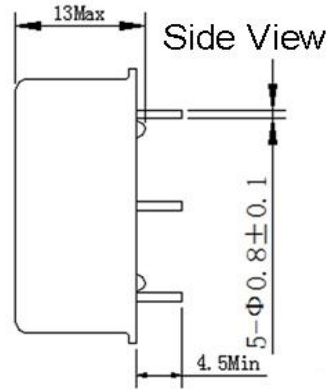
### Reliability

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

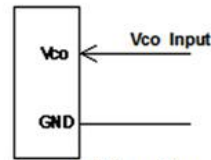
### Outline Dimension & Pin Connections



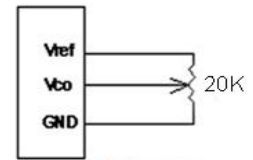
**Bottom View**



**Side View**



Using the external voltage



Using the variable resistor

**Note:**

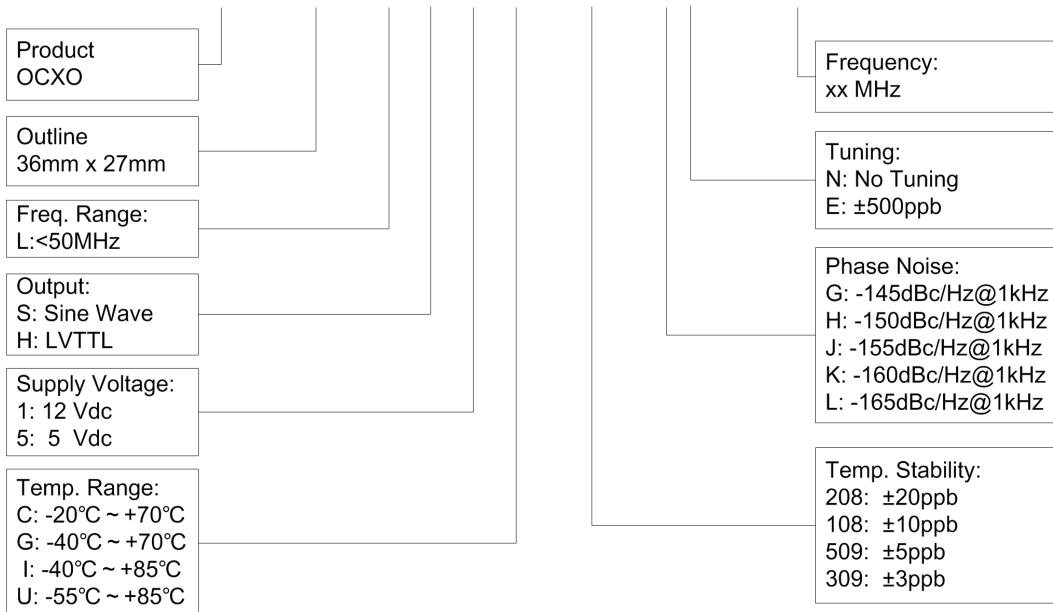
1. Leave pin 1 unconnected If Vcon is not used.
2. Leave pin 2 unconnected If Vref is not used.
3. Reference connection of voltage control circuit.

#### Pin Connections

Pin	Symbol	Description
Pin1	Vcon	Control Voltage
Pin2	Vref	Reference Voltage
Pin3	Vdd	Power Supply
Pin4	Fout	Output
Pin5	GND	Ground, Case

### Ordering Guide

## BO 2736 L X X X XXX X XXX.XX



**Example:** BO2736LH5C509HN10