

Features

- Ultra Stable
- Wide Temperature Range
- Fast Warming-up

Applications

- Base Stations
- Instrumentations
- Synthesizer
- Medical Electronics

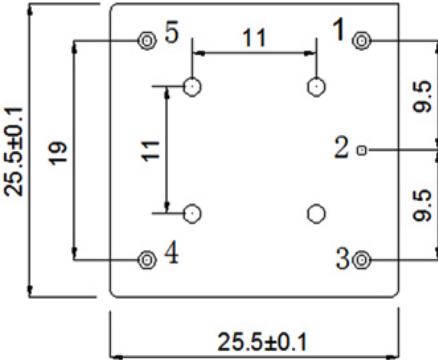

BO2525L Specifications

Parameter	Value			Unit	Condition	
	Min.	Typ.	Max.			
Supply Voltage	–	5.0	–	V		
	–	12.0	–	V		
Power Consumption	–	–	3.0	W	During Warming-up	
	–	–	1.0	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.	±5	–	±10	ppb	-20°C ~ +70°C	
	±5	–	±10	ppb	-40°C ~ +70°C	
	±10	–	±50	ppb	-40°C ~ +85°C	
	–	–	±100	ppb	-55°C ~ +85°C	
Sine Wave	Output Level	7	–	dBm		
	Harmonics	–	–	-35	dBc	
	Spurious	–	–	-70	dBc	
	Load	–	50	–	Ω	
LVTTTL	V _{OH}	2.4	–	V	LVTTTL Output, Load=15pf	
	V _{OL}	–	–	0.4	V	LVTTTL Output, Load=15pf
	Duty Cycle	45	–	55	%	(V _{OH} - V _{OL})/2
	Rise/Fall edge	–	–	6	ns	LVTTTL Output, Load=15pf
	Load	–	15	–	pf	
Short-term Stability(1S)	–	–	5×10 ⁻¹²		Test after 15 Min.	
Warm-up Time	–	–	10	Min	At +25°C, with accuracy of ±5ppb	
Supply Sensitivity	–	–	±5	ppb	V _{cc} ±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	-120	–	–	dBc/Hz	Offset 10Hz	
	-140	–	–		Offset 100Hz	
	-160	–	–		Offset 1kHz	
	-165	–	–		Offset 10kHz	
	-165	–	–		Offset 100kHz	
Control Voltage Range	0	–	5	V		
	0	–	12	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					

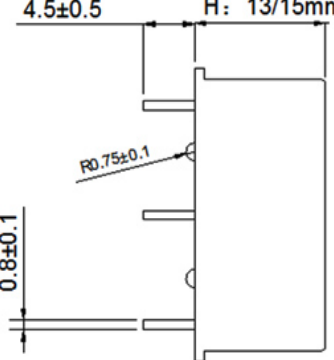
Reliability	
Parameter	Condition
Temperature Stress Test	IEC60068, GJB360B
Mechanical Stress Test	IEC60068, GJB360B
EMC Test (ESD)	IEC61000, JESD22
Solderability	EIA/JESD22-B102-C
RoHS	RoHS Directive 2011/65/EU Annex II Recasting 2002/95/EC

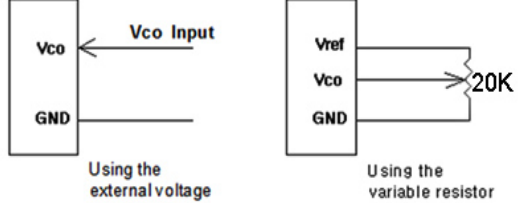
Outline Dimension & Pin Connections

Bottom View



Side View





Using the external voltage

Using the variable resistor

Pin Connections

Pin	Function	Notes
Pin1	Fout	Output
Pin2	GND	Ground, Case
Pin3	Vcon	Control Voltage
Pin4	Ref.	Voltage Reference
Pin5	Vdd	Power Supply

Note:

1. Leave pin 3 unconnected if Vcon is not used.
2. Leave pin 4 unconnected if Vref is not used.
3. Reference connection of voltage control circuit.

Ordering Guide

BO 2525 L X X X XXX X X XX.XX

Product: OCXO

Outline: 25mm x 25mm

Freq. Range: L: <50MHz

Output:
S: Sine Wave
H: LVTTTL

Supply Voltage:
1: 12 Vdc
5: 5 Vdc

Temp. Range:
C: -20°C ~ +70°C
G: -40°C ~ +70°C
I: -40°C ~ +85°C
U: -55°C ~ +85°C

Frequency: xx MHz

Tuning:
N: No Tuning
E: ±500ppb

Phase Noise:
G: -145dBc/Hz@1kHz
H: -150dBc/Hz@1kHz
J: -155dBc/Hz@1kHz
K: -160dBc/Hz@1kHz

Temp. Stability:
508: ±50ppb
108: ±10ppb
509: ±5ppb

Example: BO2525LH5C108HN10

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