XtalTQ Technologies

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	Vcc±5%	
		–	12.0	–	V	Vcc±5%	
Power Consumption		–	–	3.0	W		
		–	–	1.0	W		
Frequency Range		10 ~ 40			MHz		
Nominal Frequency		10, 20, 40			MHz		
Initial Frequency Tolerance		–	–	±100	ppb	At shipment, nominal EFC	
Freq. Stability Vs. Temp.		±3	–	±10	ppb	-20℃ ~ +70℃	
		±5	–	±10	ppb	-40℃ ~ +70℃	
		±10	–	±50	ppb	-40℃ ~ +85℃	
		–	–	±100	ppb	-55℃ ~ +85℃	
Sine Wave	Output Level	7	–	–	dBm		
	Harmonics	–	–	-40	dBc		
	Spurious	–	–	-80	dBc		
	Load	–	50	–	Ω		
HCMOS	V_{OH}	2.4	–	–	V	HCMOS Output, Load=15pf	
	V_{OL}	–	–	0.4	V	HCMOS Output, Load=15pf	
	Duty Cycle	45	–	55	%	(V_{OH} - V_{OL})/2	
	Rise/Fall edge	–	–	6	ns	HCMOS Output, Load=15pf	
	Load	–	15	–	pf		
Short-term Stability@10MHz		–	–	3×10^{-12}		Test after 15 Min.	
Warm-up Time		–	–	5	Min	At +25°C, with tolerance ± 100ppb	
Supply Sensitivity		–	–	±5	ppb	Vcc±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	@+25℃
		–	–	-140		Offset 100Hz	
		–	–	-160		Offset 1kHz	
		–	–	-165		Offset 10kHz	
		–	–	-168		Offset 100kHz	
Control Voltage Range		0	–	5	V		
Frequency Turning Range		±0.5	–	±2.0	ppm		
Tuning Slope		Positive					

Environmental Conditions

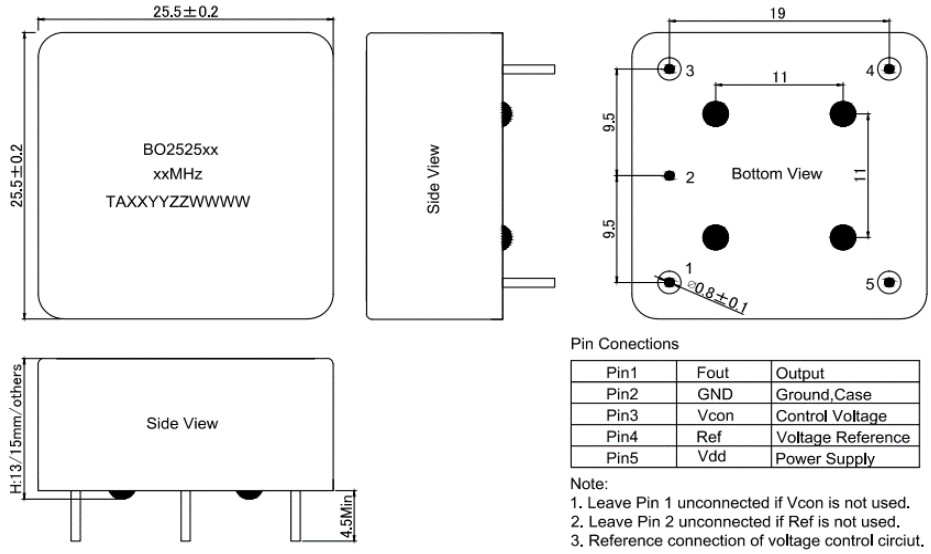
Operating Temperature Range	-55℃～+85℃
Storage Temperature Range	-55℃~+125℃

Release Date: Mar.27, 2016

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



Pin Conections

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

Note:
1. Leave Pin 1 unconnected if Vcon is not used.
2. Leave Pin 2 unconnected if Ref is not used.
3. Reference connection of voltage control circiut.

Ordering Guide

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

- Product: OCXO
- Outline: 25mm x 25mm
- Freq. Range: L: < 50MHz
- Output: H: CMOS; S: Sine Wave
- Supply Voltage: 1: 12 Vdc; 5: 5 Vdc
- Temp. Range: C: -20℃ ~ +70℃; G: -40℃ ~ +70℃; I: -40℃ ~ +85℃; U: -55℃ ~ +85℃
- Frequency: xx MHz, e.g.: 10 (10MHz)
- Tuning: N: No Tuning; E: ≥±500ppb; D: ≥±1000ppb
- Phase Noise: H: -150dBc@1kHz; J: -155dBc@1kHz; K: -160dBc@1kHz; L: -165dBc@1kHz
- Temp. Stability: 207: ±200ppb; 107: ±100ppb; 508: ±50ppb; 509: ±5ppb

Example: BO2525LH5C108HN10

Disclaimer

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