

Features

- Ultra Stable
- Wide Temperature Range
- Fast Warming-up
- Low Phase Noise

Applications

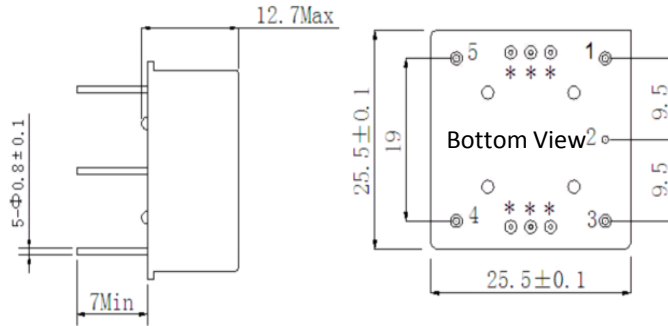
- Base Stations
- Instrumentations
- Synthesizer
- Medical Electronic


BO2525H Series Specifications

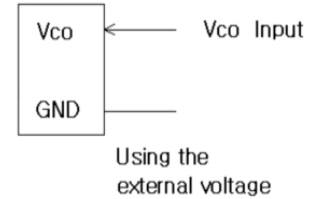
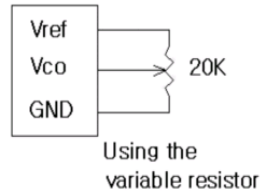
Parameter	Value			Unit	Condition	
	Min.	Typ.	Max.			
Power Supply						
Supply Voltage	4.75	5	5.25	Vdc		
	11.4	12	12.6	Vdc		
Power Consumption	–	–	4.0	W	During Warming-up	
	–	–	1.5	W	Steady at +25°C & still air	
RF Output						
Frequency Range	60 to 120			MHz		
Nominal Frequency	80,100			MHz		
Sine Wave	Output Level	7	–	–	dBm	
	Harmonics	–	–	-30	dBc	
	Spurious	–	–	-70	dBc	
	Load	–	50	–	Ω	
Square 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	–	–	2	ns	@HCMOS Output, Load=15pf
	Load	–	–	15	pf	
Frequency Stability						
Initial Frequency Tolerance	±100	–	±300	ppb	At shipment, nominal EFC	
Warm-up Time	–	–	5	Min	At +25°C, with accuracy of ±100ppb	
Freq. Stability Vs. Temp.	±50, ±100			ppb	-20°C ~ +70°C	
	±50, ±100			ppb	-40°C ~ +70°C	
	±100, ±200			ppb	-40°C ~ +85°C	
	±200, ±500			ppb	-55°C ~ +85°C	
Supply Sensitivity	±5			ppb	V _{CC} ±5%	
Load Sensitivity	±5				Load±5%	
Aging per Day	±5, ±10				After 30 days of operation	
Aging per Year	±500, ±1000				After 30 days of operation	
SSB Phase Noise @100MHz	–	–	-90	dBc/Hz	Offset 10Hz	
	–	–	-120		Offset 100Hz	
	–	-150	-145		Offset 1kHz	
	–	–	-155		Offset 10kHz	
	–	–	-160		Offset 100kHz	
Electronic Frequency Control						
Control Voltage Range	0 ~ 5			Vdc		
Frequency Turning Range	±500, ±1000			ppb		
Tuning Slope	positive					

Outline Dimension & Pin Connections

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


Note:

1. The pin with '*' are for factory test.
2. Leave pin 3 unconnected if Vcon is not used.
3. Leave pin 4 unconnected if Vref is not used.
4. Reference connection of voltage control circuit.


Environmental Conditions

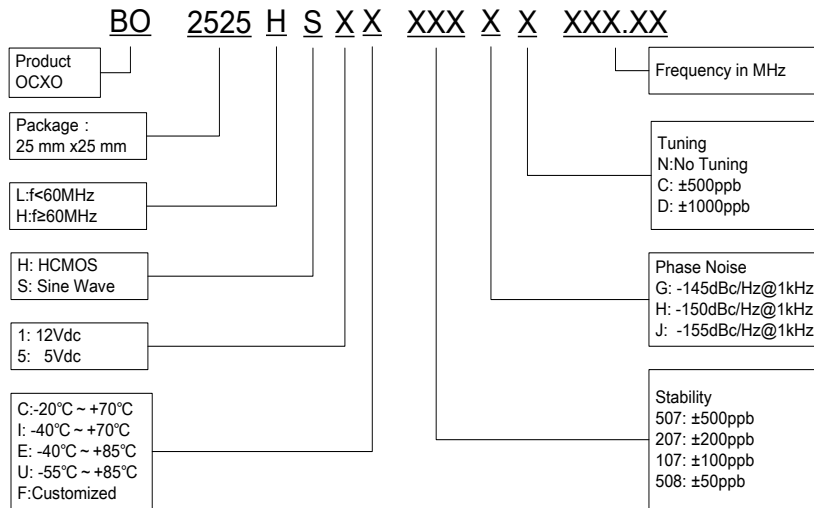
Operating Temperature Range	-20°C ~ +70°C
	-40°C ~ +70°C
	-40°C ~ +85°C
	-55°C ~ +85°C

Maximum Ratings

Parameter	Symbol	Rating
Storage Temperature Range	Ts	-55°C ~ +125°C
Supply Voltage	Vdd	-0.3V/15V
Control Voltage	Vcon	0V/5V
ESD, HBM/CDM/MM		3KV/1KV/200V

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

Ordering Guide


Example: BO2525HS1C508HN100

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