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OCXO2020L
High Stability Miniature OCXO

Features and Benefits

High stability OCXO
HCMOS output
Frequency Tuning Input
5 minutes max warm-up
20.5x20.5x12mm max

Description

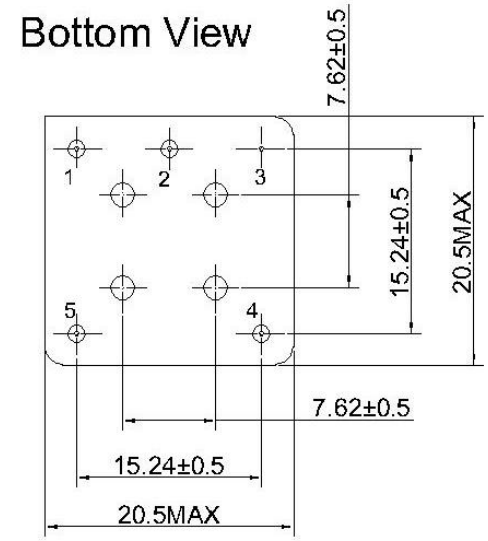
The OCXO2020L family offers a specially designed from 10 to 125MHz SC-Cut or AT-Cut crystal impedance matched to the oscillator and amplifier circuits to deliver consistent world class phase noise on all production shipments

Typical Applications

Ref. for Microwave comm. System
Signal analyzer reference for internal synthesizers
SATCOM systems

Mechanical Drawing & Pin Connections

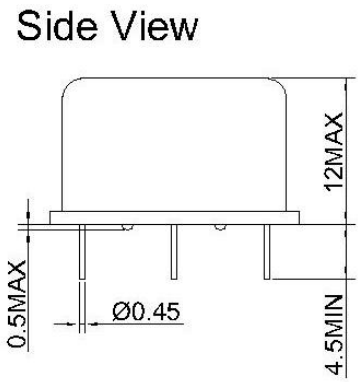
Drawing No: MD140063-1

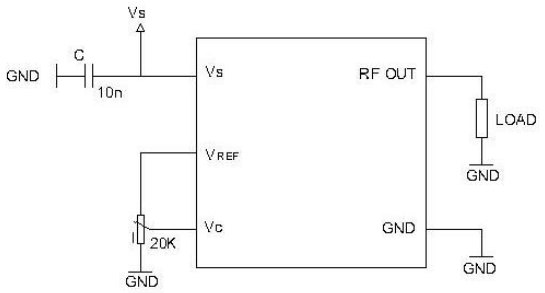


Pin Connections:

Pin	Symbol	Function
1	Vs	Supply Voltage
2	RF OUT	RF Output
3	GND	Groung
4	Vc	Control Voltage(EFC)
5	VREF	Reference Voltage

Unit : mm





Specifications

OCXO Specification		Sym	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Frequency Range		F_0		10		125	MHz	
Standard Frequencies				10.000/12.800/20.000/100.000			MHz	
RF Output								
Output Waveform				HCMOS				
Load			+/-10%		15		pF	
Symmetry(Duty Cycle)			@ Vs/2	40		60	%	
Rise & Decay Time			@10% to 90% Vs			5	ns	
Power Supply								
Voltage		Vcc		3.15	3.3	3.45	V	Optional
				4.75	5.0	3.45		
				11.6	12.0	12.6		
Current Consumption(Steady State)		I_{Steady}	@ Vcc=3.3V			300	mA	Optional
			@ Vcc=5.0V			200		
			@ Vcc=12.0V			100		
Current Consumption(Warm-up)		$I_{Warm-up}$	@ Vcc=3.3V			800	mA	Optional
			@ Vcc=5.0V			600		
			@ Vcc=12.0V			300		
Warm-up Time@+25°C			$\triangle f_{final}/f_0$<+/-0.1ppm		3	5	min	
Frequency Control*								
Electronic Frequency Control(EFC)			For AT-Cut	+/-2		+/-5	ppm	
			For SC-Cut	+/-0.8				
Reference Output		V_{REF}	@ Vcc=3.3V		3.0		V	Optional
			@ Vcc=5.0V		4.0		V	
			@ Vcc=12.0V		5.0		V	
EFC Voltage		Vc		0	$V_{REF}/2$	V_{REF}	V	
EFC Input Impedance				100			Kohm	
EFC Slope		$\triangle f/Vc$		Positive				
Frequency Stability								
Initial Tolerance @+25°C			Vc @ $V_{REF}/2$			+/-300	ppb	
Vs. Operating Temperature Range			Steady state			+/-10	ppb	For more information, Please consult sale
Vs. Supply Voltage Variation(Pushing)			Vs+/-5%			+/-10	ppb	
Vs. Load Change(Pulling)			Load+/-10%			+/-10	ppb	
Aging	Long Term Per Day (After 30 Days Operation)		For AT-Cut			+/-10	ppb	Optional
			For SC-Cut			+/-2		
	Long Term 1st Year (After 30 Days Operation)		For AT-Cut		+/-300	+/-500	ppb	Optional
			For SC-Cut		+/-50	+/-200		
Phase Noise								
Consult Sale								
Environmental								
Packing		Palette						
Size		20.5x20.5x12mm max						
Weight		10g max						