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OCXO2525C_Rev2-6-6-6-1-2-100MHz
Low Phase Noise Sine Wave Output OCXO

Features and Benefits

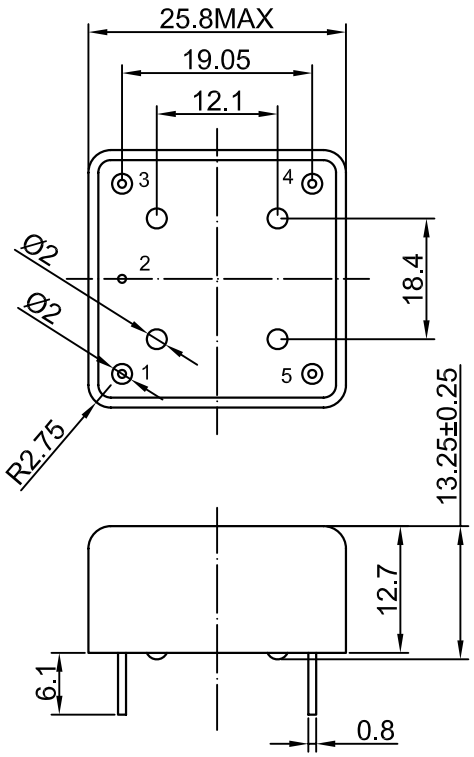
Frequency range: 100MHz
Supply voltage: 5V
Steady current:240mA
Output waveform: Sinewave
Frequency stability vs. operating temperature: ±10PPB
Aging: ±200PPB per year
Operating temperature: -40°C to +85°C
Size: 25.8x25.8x12.7

Typical Applications

Test instrument reference
Ref. for microwave communication system
signal analyzer reference for internal synthesizers
SATCOM systems

Mechanical Drawing & Pin Connections

Drawing No: MD140078-1



Pin connections:

Pin No.	Pin Function
1	Output
2	GND
3	Control Voltage
4	Reference Voltage
5	Supply Voltage

Unit in mm
1mm = 0.0394 inches

Specifications

Oscillator Specification		Sym	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Frequency Range		f_0			100		MHz	
RF Output								
Sine-wave	Level	L		+7			dBm	
	Load	R_L	±5%		50		Ohm	
	Harmonics Level					-30	dBc	
Power Supply								
Voltage		V_{cc}		4.75	5	5.25	V	
Power Consumption			Warm-up			3500	mW	
			Steady-state, +25°C			1200		
Warm-up Time:		T_{up}	@+25°C to Δf/ f=1e-7,			180	s	Ref. to freq. after 15 min. of operation
Frequency Control								
Control Voltage Range		V_c		0		4.3	V	
Tuning Range				±0.3			ppm	Positive slope
Reference Voltage Output		V_{ref}		4.0		4.3	V	
Frequency Stability								
Initial Tolerance			@+25°C, V_C=0.5*V_{ref}	±0.01	±0.1		ppm	
Versus Temperature			ref 25°C -40°C to +85°C			±10	ppb	air flow 0.5 m/s max.
Versus Supply Voltage			Ref. Vcc typ.		±0.2		ppb	
Aging	Per day		After 30 days of operation			±2	ppb	
	First Year					±200	ppb	
G-sensitivity			worst direction, 0 – 1kHz vibration BW	±0.2	±1		ppb/g	
Phase Noise			1Hz	---		---	dBc/Hz	
			10Hz	-100		-85		
			100Hz	-130		-115		
			1KHz	-155		-150		
			10KHz	-170		-160		
			100KHz	-175		-165		

Environmental Conditions	
Operating Temperature Range	-40°C to +85°C
Storage Temperature Range	-60°C to +85 °C
Humidity	Hermetically sealed
Mechanical Shock	Per MIL-STD-202, 30G half sine pulse, 11ms
Vibration	Per MIL-STD-202, 10G swept sine 0 to 2000Hz
Soldering Conditions	Hand solder only – not reflow compatible. 260ºC 10s (on pins)
Washing Conditions	Washing with water or alcohol based detergent allowed only with final enough drying stage