

OCXO SERIES 8000

FEATURES

Small OCXO in 1" SQ. package
Frequencies up to 100 MHz
AT and SC-Cut option



ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
			Min.	Typ.	Max.	
Frequency Range*	f_0		5.000		100.000	MHz
Supply Voltage	V_s	$V_s \pm 5\%$	3.135	3.3	3.465	V
			4.75	5.0	5.25	
			11.40	12.0	12.60	
Power Consumption	P_s	Steady state, @ 25°C			1.25	W
	$P_{s,w}$	During warm-up, @ 25°C			3.0	
Warm-up Time	t_w	V_s , $T_a = +25^\circ\text{C}$, within $\pm 100\text{ppb}$ of final frequency with reference after 1 hour on			5	min
Frequency Calibration	$\Delta f/f_0$	$T_a = +25^\circ\text{C}$, after 15mins power on ref. to nominal frequency	-200		+200	ppb
Frequency Stability vs. Temperature*	$\Delta f/f_0 (T_a)$	Measurement referenced to $(f_{\text{max}} + f_{\text{min}})/2$. See Table	-5		+5	ppb
Frequency Stability vs. Supply Voltage	$\frac{\Delta f/f_0}{(\Delta V_{CC})}$	$T_a = 25^\circ\text{C}$, $V_s \pm 5\%$, load = 15pF	-1		+1	ppb
Frequency Stability vs. Load Variation	$\Delta f/f_0 (\Delta I)$	$T_a = 25^\circ\text{C}$, V_s , load = 15pF $\pm 5\%$	-1		+1	ppb
Aging, after 30 days of operation	$\Delta f/\Delta t_d$	Per day	-0.3		+0.3	ppb
	$\Delta f/\Delta t_y$	First year	-80		+80	ppb
	$\Delta f/\Delta t_y$	10 years	-0.4		+0.4	ppm
Operating Temperature Range*		See Table 1	-40		+85	°C
Storage Temperature	$T_{\text{(stg)}}$		-40		+105	°C
Short Term Stability		$\tau = 1\text{s}$			0.05	ppb
Control Voltage Range	V_C		0	1.65	3.0	V
Frequency Tuning Range		$V_C = 0\text{V}$	-4		-2	ppm
		$V_C = 1.65\text{V}$	-200		+200	ppb
		$V_C = 3.3\text{V}$	+2		+4	ppm
Linearity			-10		+10	%

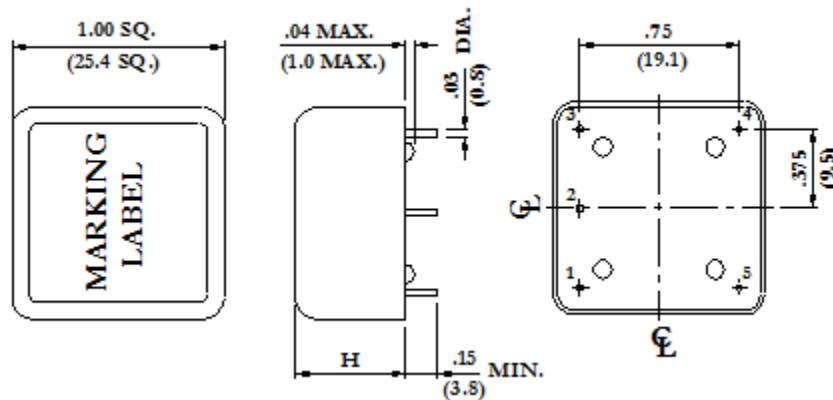
*Not any Combination Frequency-Operating Temperature Range- Stability is available. Please consult factory
**The above Specification is an example for 10.000MHz, 5V

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ENVIRONMENTAL MECHANICAL CONDITIONS

Storage temperature range	-55°C to +105°C
Drop Test	The test shall be carried out as the provisions of the IEC60028-2-32 test Ed. 10cm height, 3 times on hard board with thickness of 3cm
Bumping Test	Device are bumped to three mutually perpendicular axes at peak acceleration of 400m/s ² , each 4000±10times, 6ms pulse duration time
Vibration Test	Frequency range: 1Hz-4Hz-100Hz-200Hz Acceleration: 0.0001g ² /Hz-0.01g ² /Hz-0.01g ² /Hz-0.001g ² /Hz Grms=1.15g Sweep time: 30 minutes (perpendicular axes each sweep time)
Mechanical Shock	100g, 6mS duration, 1/2 sine wave, 3 shocks each direction along 3 mutually perpendicular planes.
Thermal shock	0.5h@ - 40°C, 0.5h@+85°C, Note: the changing time < 30 seconds, cycling for 100 times

MECHANICAL DIMENSIONS AND PIN FUNCTIONING



PIN	SYMBOL	FUNCTION
1	N/C or V _C	No connect or Control Voltage
2	N/C or V _{ref}	No connect or Reference Voltage
3	V _s	Supply Voltage
4	OUTPUT	RF Output
5	GND	Case/Ground