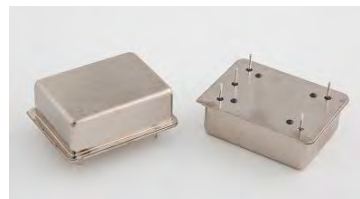


### OCXO SERIES OXD30

#### FEATURES

Ultra High Stability  
Low Aging



#### ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
			Min.	Typ.	Max.	
Frequency Range*	$f_0$			10.000		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			2.0	W
	$P_{s,w}$	During warm-up, @ 25°C			4.7	W
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	-100		+100	ppb
Frequency Stability vs. Temperature	$\Delta f/f_0 (T_a)$	Measurement referenced to $(f_{\text{max}} + f_{\text{min}})/2$ . See Table	-0.2		+0.2	ppb
Frequency Stability vs. Supply Voltage	$\Delta f/f_0 (\Delta V_{CC})$	$T_a = 25^\circ\text{C}$ , $V_s \pm 5\%$ , load = 15pF	-0.3		+0.3	ppb
Frequency Stability vs. Load Variation	$\Delta f/f_0 (\Delta I)$	$T_a = 25^\circ\text{C}$ , $V_s$ , load = 15pF $\pm 5\%$	-0.3		+0.3	ppb
Aging, after 30 days of operation	$\Delta f/\Delta t_d$	Per day	-0.2		+0.2	ppb
	$\Delta f/\Delta t_y$	First year	-50		+50	ppb
	$\Delta f/\Delta t_y$	10 years	-0.3		+0.3	ppm
Operating Temperature Range			-40		+80	°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	2.5	5.0	V
Frequency Tuning Range		$V_c = 0\text{V}$	-0.8		-0.4	ppm
		$V_c = 1.65\text{V}$	-200		+200	ppb
		$V_c = 3.3\text{V}$	+0.4		+0.8	ppm
Linearity			-10		+10	%

\*Not any Combination Frequency-Operating Temperature Range- Stability is available. Please consult factory

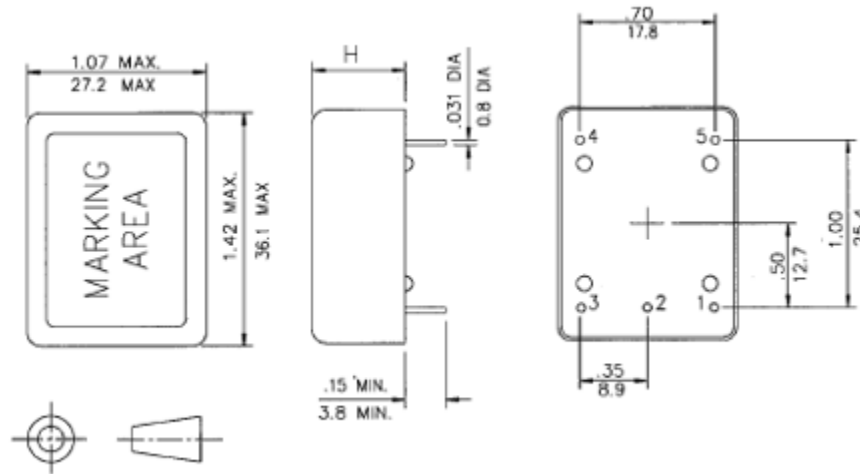
\*\*The above Specification is an example for 10.000MHz, 5V

**OCXO SERIES OXD30**

**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 <sup>2</sup> , each 4000±10times, 6ms pulse duration time
Vibration Test	Frequency range: 1Hz-4Hz-100Hz-200Hz Acceleration: 0.0001g <sup>2</sup> /Hz-0.01g <sup>2</sup> /Hz-0.01g <sup>2</sup> /Hz-0.001g <sup>2</sup> /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**



H = 0.59"/15mm max

PIN	SYMBOL	FUNCTION
1	N/C or V <sub>c</sub>	No connect or Control Voltage
2	N/C or V <sub>ref</sub>	No connect or Reference Voltage
3	V <sub>s</sub>	Supply Voltage
4	OUTPUT	RF Output
5	GND	Case/Ground