

PD6000 TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR (TCXO)

The PD6000 series is packaged in a robust, high reliability, 14 pin DIL resist-ance weld enclosure. It is an ideal choice for designs where high reliability and performance accuracy, over an extended temperature range, are of primary concern.

ADVANTAGES

- Hermetic Seal Without Option T
- Extended Temperature Range
- High Reliability
- Wide Operating Frequency Range

APPLICATIONS

- Telecommunications
- Aerospace
- Base Stations
- Global Positioning Systems (GPS)



Electrical Performance ($T_a=25^{\circ}\text{C}$, $C_L = 10\text{k}\Omega//10\text{pF}$ and $V_{cc} = +5.0\text{V}$)

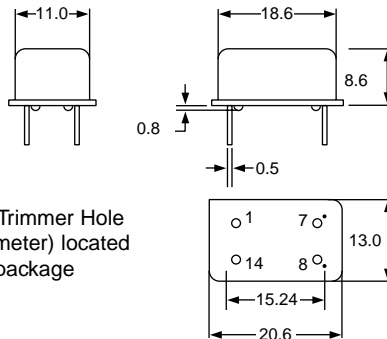
PARAMETER	MINIMUM	MAXIMUM	UNITS
Nominal Frequency (F_o)	8.0	50	MHz
Calibration Tolerance	-1.0	+1.0	ppm
Frequency Stability			ppm
Over Temperature Range (See Note 2)	-2.5	+2.5	
Ageing (per year at $+25^{\circ}\text{C}$)	-1.0	+1.0	
Over Supply Voltage Variation ($V_{cc} = +5.0\text{V} \pm 0.25\text{V}$)	-0.3	+0.3	
Operating Temperature Range (See Note 2)	-40	+85	$^{\circ}\text{C}$
Storage Temperature Range	-55	+125	$^{\circ}\text{C}$
Supply Voltage (V_{cc}) (See Note 2)	+4.75	+5.25	V
Supply Current (Dependent upon nominal frequency)	2.0	15.0	mA
Output Waveform HCMOS/TTL			
Logic Levels	0.1 V_{cc}	0.9 V_{cc}	V
Duty Cycle (@ $V_{cc}/2$)	40	60	%
Fall and rise times	3	10	ns
Frequency Adjustment (Internal trimmer)	± 3.0		ppm
Option T e.g. PD6000T			
Voltage Control $+2.5\text{V} \pm 2.0\text{V}$ Option V e.g. PD6000TV	± 5.0		ppm

Notes

1. To order state part number, options and nominal frequency (e.g. PD6000 TV 45.750 MHz).
2. Other temperature ranges, stabilities and supply voltages are available upon request.

Pin Connections:

- 1 = V control or N/C
- 7 = Ground/case
- 8 = Output
- 14 = V_{cc}



*Optional Trimmer Hole (3mm diameter) located on top of package

*Measurement in millimeters



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