

TC60-3

TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR (TCXO)

The TC60-3 series provides a range of temperature compensated crystal oscillators operating at +3.3V supply with either HCMOS or clipped sinewave outputs. The 14 pin compatible resistance welded package provides a robust and highly reliable, hermetically sealed unit, suited to operating in the harshest of conditions.



ADVANTAGES

- † Through Hole Package
- † Extended Temperature Range
- † Resistance Welded Hermetic Seal.
- † Wide Operating Frequency Range

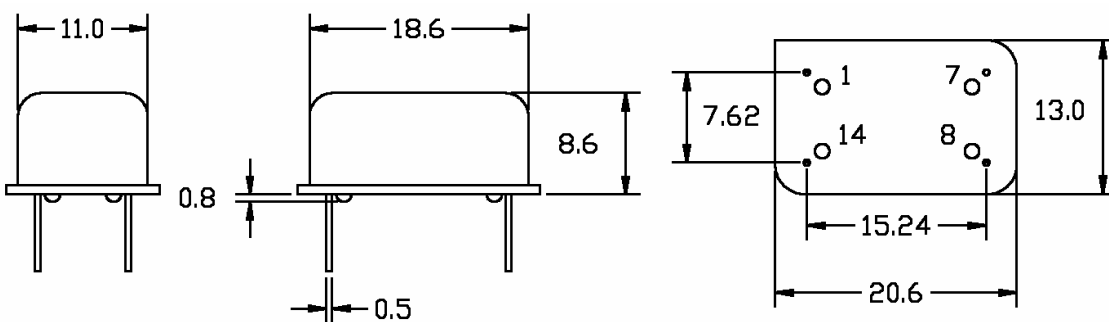
APPLICATIONS

- † Aerospace
- † Military
- † Mobile Communications.
- † Instrumentation

ELECTRICAL PERFORMANCE ($T_a=25^\circ\text{C}$, $C_L = 10\text{k}\Omega$ //10pF and $V_{cc} = +3.3\text{V}$)

PARAMETER	MINIMUM	MAXIMUM	UNITS
NOMINAL FREQUENCY (F_o)	4.0	100	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°C)	-1.0	+1.0	
Over Supply Voltage Variation ($V_{cc} = +3.3\text{V} \pm 5.0\%$)	-0.3	+0.3	
OPERATING TEMPERATURE RANGE (See Note 2)	-40	+85	°C
STORAGE TEMPERATURE RANGE	-55	+105	°C
SUPPLY VOLTAGE (V_{cc}) (See Note 2)	+3.135	+3.465	V
SUPPLY CURRENT (Dependant upon nominal frequency)	2.0	15.0	mA
OUTPUT WAVEFORM HCMOS/TTL (Order code TC40-3A)			
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
OUTPUT WAVEFORM Clipped sinewave (Order code TC40-3B)			
Peak to Peak amplitude	0.7		V
VOLTAGE CONTROL +1.65V \pm 1.5V	± 5		ppm

Parameter	Standard Observed
Mechanical Shock	MIL-STD-202 Method 213, Condition C
Vibration	MIL-STD-202 Method 201, 204, and 214
Hermeticity	MIL-STD-202, Method 112
Solderability	IPC/EIA-STD-002A



Pin Connections:
 1 Vcont.
 7 Ground
 8 Output
 14 Vcc

- NOTES**
- 1) To order, state part number, options and nominal frequency e.g. TC40-3A 16.384MHz
 - 2) Other temperature ranges, stabilities and supply voltages are readily available upon request.
 - 3) Other specifications available upon request

Precision Devices INC. – 8840N, Greenview Drive, Middleton WI 53562, Tel- 1-800-274-XTAL, Fax- 1-608-831-3343,
 www.pdixtal.com Outside US Phone- 608-381-4445, E-mail- sales@pdixtal.com
 PD (HK) Ltd. – Tel- (852)-2367-3626, Fax- (852)-2646-3122, E-mail- sales@pdixtal.com.hk
 PD (UK) Ltd. – Tel- +44 (0)1223 834444, Fax- +44(0)1223 834589, E-mail- sales@pdixtal.co.uk