

TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR (TCXO)

The TC60-5 series provides a range of temperature compensated crystal oscillators operating at +5.0V 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.
- MilitaryMobile Communications.

APPLICATIONS

† Aerospace

- † Wide Operating Frequency Range
- Mobile Communication
 Instrumentation



ELECTRICAL PERFORMANCE (Ta=25°c, C_L = 10k? //10pF and Vcc = +5.0V)

PARAMETER	MINIMUM	MAXIMUM	UNITS
NOMINAL FREQUENCY (Fo)	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 (Vcc = $+5.0V \pm 5.0\%$)	-0.3	+0.3	
OPERATING TEMPERATURE RANGE (See Note 2)	-40	+85	?C
STORAGE TEMPERATURE RANGE	-55	+105	?C
SUPPLY VOLTAGE (Vcc) (See Note 2)	+4.75	+5.25	V
SUPPLY CURRENT (Dependant upon nominal frequency)	2.0	15.0	mA
OUTPUT WAVEFORM HCMOS/TTL (Order code TC40-5A)			
Logic Levels	0.1Vcc	0.9Vcc	V
Duty Cycle (@ Vcc/2)	40	60	%
Fall and rise times	3	10	ns
OUTPUT WAVEFORM Clipped sinewave (Order code TC40-5B)			V
Peak to Peak amplitude	1.0		
VOLTAGE CONTROL +2.5V ±2.0V	±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. TC40-5A 16.384MHz 2) Other temperature ranges, stabilities and supply voltages are readily available upon request. 3) Other specifications available upon request.

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