

14 pin DIL Low-Power Oscillator

1.0Hz to 160kHz

FEATURES

- Frequency range 1Hz to 160kHz using a tuning fork crystal
- Current consumption in μA range
- Supply voltage range from +3.0V to +15.0 Volts
- 32.768kHz ideal for accurate real-time-clock applications
- Suitable for battery-operated devices, data loggers etc.



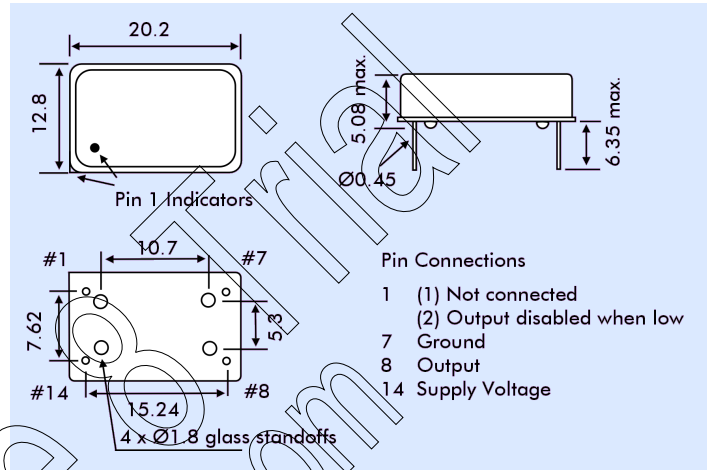
DESCRIPTION

LPO oscillators are ideal for battery operated portable or hand-held consumer electronic devices where low supply current consumption is essential. Applications include data logging and portable test equipment.

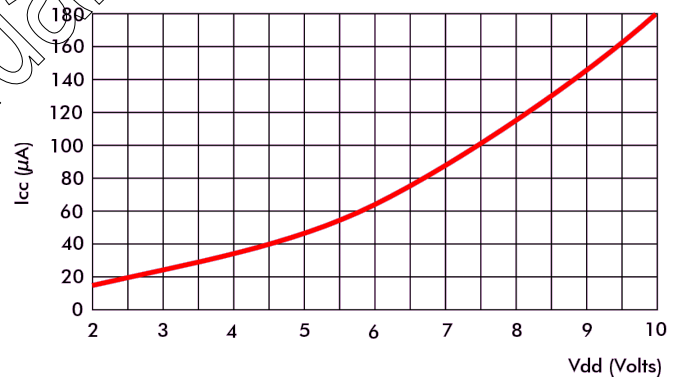
SPECIFICATION

Model:	LPO14
Input Voltage (standard):	+3.3 VDC $\pm 5\%$ or +5.0 VDC $\pm 10\%$ <i>Input voltages from 3.0V to 15.0V are available.</i>
Frequency Range:	1.0Hz to 160.0kHz
Output Waveform:	HCMOS (square wave)
Frequency Tolerance	
Tolerance code 'P':	$\pm 10\text{ppm}$
Tolerance code 'A':	$\pm 25\text{ppm}$
Tolerance code 'B':	$\pm 50\text{ppm}$
Tolerance code 'C':	$\pm 100\text{ppm}$
Frequency Stability:	-100ppm (typical) over 0° to +70°C -160ppm (typical) over -40° to +85°C
Current Consumption	
Supply = 3.3 Volts:	26 μA typical
Supply = 3.3 Volts:	45 μA typical
Output Logic High '1'	
Supply = 3.3 Volts:	2.97V minimum
Supply = 5.0 Volts:	4.50V minimum
Output Logic Low '0'	
Supply = 3.3 Volts:	0.33V maximum
Supply = 5.0 Volts:	0.50V maximum
Rise/Fall Times	
Supply = 3.3 Volts:	0.5 μs typical, 1.0 μs maximum
Supply = 5.0 Volts:	25 μs typical, 50 μs maximum
Fanout:	2 CMOS gates
Start-up Time:	450ms maximum
Duty Cycle:	50% $\pm 5\%$ typical, 50% $\pm 10\%$ maximum
Storage Temperature:	-50° to +100°C
Ageing:	$\pm 5\text{ppm}$ per year maximum

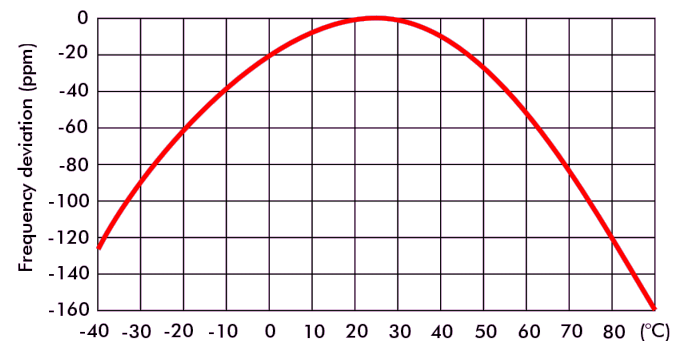
OUTLINE & DIMENSIONS



CURRENT CONSUMPTION vs. SUPPLY VOLTAGE



TYPICAL FREQUENCY STABILITY vs. TEMPERATURE



PART NUMBERING

