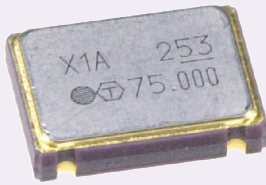


Crystal Clock Oscillator



TCO-7086X1A

SMO-N-K CMOS

Features

- CMOS logic output
- Ceramic package
- Space savings
- Enable / Disable feature

Specifications

Absolute Maximum Ratings

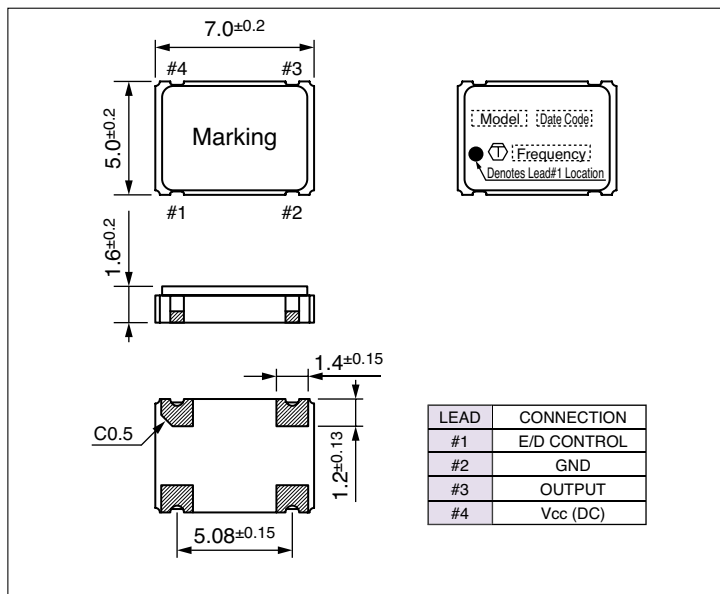
Parameter	Symbol	Rating
Supply voltage	V_{CC}	-0.5 to +7.0 V
Input voltage	V_{IN}	-0.5 to $V_{CC} + 0.5$ V
Output voltage	V_O	-0.5 to $V_{CC} + 0.5$ V
Input current	I_{IN}	± 10 mA
Output current	I_O	± 25 mA
Storage temperature	T_{stg}	-55 to +125 °C
Soldering condition	T_{sol} T	+260°C / 20sec or +230°C / 180sec

Parameter		TCO-7086X1A	Conditions
Frequency	f_o	1.5 to 75 MHz	—
Frequency Stability	$\Delta f/f_o$	± 50 ppm max.	(*1)
Operating Temperature	T_{opr}	0 °C to +70 °C	—
Supply Voltage	V_{CC}	+3.3 V ± 10 %	DC
Supply Current	I_{CC}	20mA max.	$V_{CC} = +3.63$ V
Input Voltage	V_{IH} V_{IL}	$V_{IH} = 70$ % V_{CC} min. / $V_{IL} = 30$ % V_{CC} max.	#1: V_{IH} or OPEN ... Enable #1: V_{IL} or GND ... Disable
Output Voltage	V_{OH} V_{OL}	$V_{OH} = 90$ % V_{CC} min. / $V_{OL} = 10$ % V_{CC} max.	$I_{OH} = -5$ mA, $I_{OL} = +5$ mA at $V_{CC} = +2.97$ V
Symmetry	SYM	40 to 60 %	at 50% V_{CC}
Rise/Fall time	t_r/t_f	6 ns max.	at 10% to 90% V_{CC}
Load Capacitance	CL	15 pF max.	—
Start-up time	t_{st}	10 ms max.	(*2)

*1 Inclusive of calibration tolerance at +25°C, operating temperature, operating voltage range.

*2 Rise time (0 to +2.97V) of $V_{CC} > 150\mu s$

Package Outlines [Dimensions in mm]



Test Circuit

See Test Circuit page TEST-4

Footprint [Dimensions in mm]

