

Crystal Clock Oscillator



TCO-743TH7

FULL DIP Double-Sealed TTL

Features

- TTL logic output
- DIP-14 pin package compatible
- Tight stability ( $\pm 10$  ppm)
- 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	$I_{IN}$	$\pm 10$ mA
Output current	$I_O$	$\pm 25$ mA
Storage temperature	$T_{stg}$	-40 to +80 °C

Parameter		TCO-743TH7	Conditions
Frequency	$f_o$	1.5 to 60 MHz	
Frequency Stability	$\Delta f/f_o$	$\pm 10$ ppm max.	(*1)
Operating Temperature	$T_{opr}$	0 °C to +70 °C	
Supply Voltage	$V_{CC}$	+5.0 V $\pm 10$ %	DC
Supply Current	$I_{CC}$	See Table A (max.)	$V_{CC}=+5.5V$
Input Voltage	$V_{IH}$ $V_{IL}$	$V_{IH}=+3.5$ V min. / $V_{IL}=+1.5$ V max.	#1: $V_{IH}$ or OPEN ... Enable #1: $V_{IL}$ or GND ... Disable
Output Voltage	$V_{OH}$ $V_{OL}$	$V_{OH}=+4.0$ V min. / $V_{OL}=+0.4$ V max.	$I_{OH}=-4mA$ , $I_{OL}=+16mA$
Symmetry	SYM	45 to 55 %	at +1.4V
Rise/Fall time	$t_r/t_f$	See Table A (max.)	at +0.4 to +2.4V
Fanout	n	10 max.	1.6mA/gate
Start-up time	$t_{st}$	4 ms max. 10 ms max.	1.5 $\leq f_o \leq 26$ MHz (*2) 26 < $f_o \leq 60$ MHz (*2)

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

\*2 Rise time (0 to +4.5V) of  $V_{CC} > 150\mu s$

Package Outlines [Dimensions in mm]

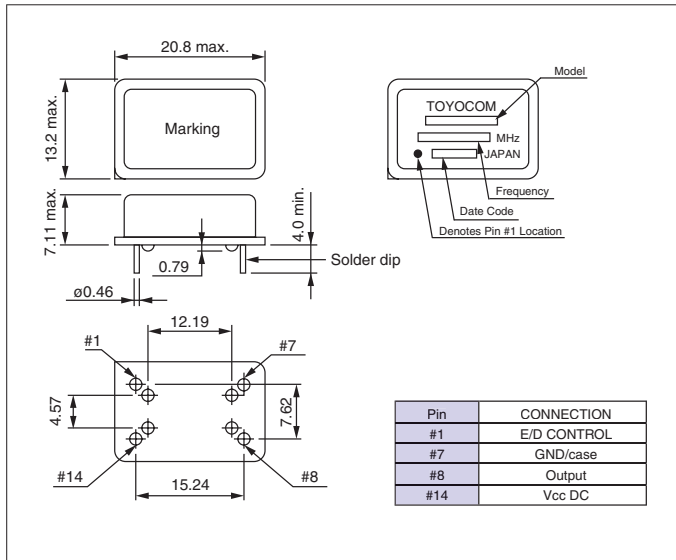


Table A

Freq. (MHz)	1.5 $\leq f_o$ $f_o \leq 10$	10 < $f_o$ $f_o \leq 26$	26 < $f_o$ $f_o \leq 60$
$I_{CC}$ (mA)	15	20	40
$t_r, t_f$ (ns)	5	5	5

Test Circuit

See Test Circuit page TEST-2