



CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

Clock Oscillator

CSO-018T Model

5x7 mm SMD, 3.3V, HCMOS

Frequency Range: 1.544 MHz to 125 MHz

Frequency Stability: ± 25 ppm to ± 100 ppm

Temperature Range:

Operating: 0°C to 70°C

(Option M) -20°C to 70°C

(Option X) -40°C to 85°C

Storage: -45°C to 120°C

Input Voltage: 3.3V $\pm$ 0.3V

Input Current: 45mA Max

Output: HCMOS

Symmetry: 40/60% Max @ 50% Vdd

(Option Y) 45/55% Max @ 50% Vdd

Rise/Fall Time: 10ns Max @ 20% to 80% Vdd

Logic: "0" = 10% Vdd Max

"1" = 90% Vdd Min

Load: 15pF Max

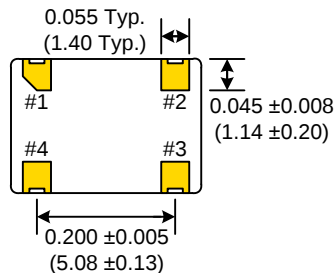
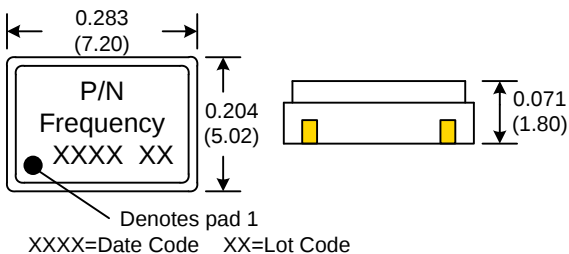
Aging: <3ppm 1st/yr, 1ppm every year thereafter



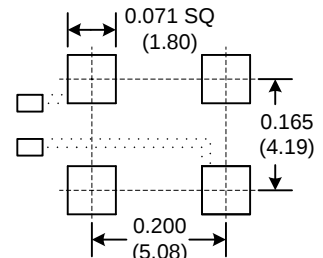
Designed to meet today's requirements for economical 3.3V applications. Available on 16mm tape and reel in quantities of 1K.

Dimensions inches (mm)

All dimensions are Max unless otherwise specified.

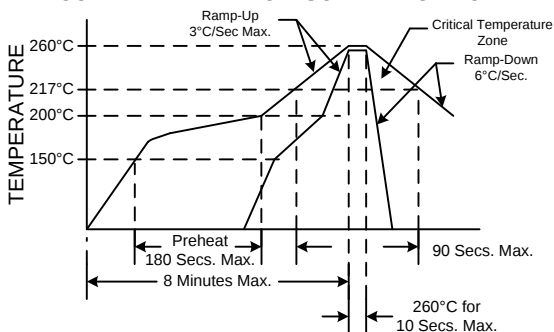


SUGGESTED PAD LAYOUT

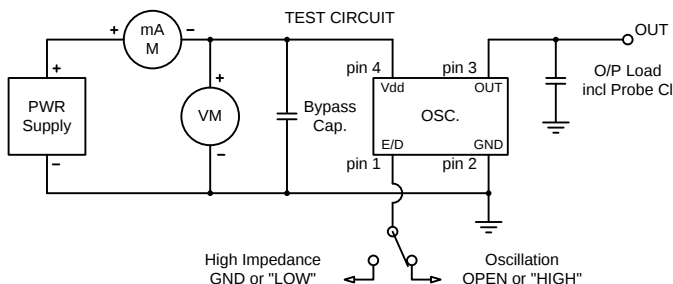


0.01uF Bypass Capacitor Recommended

RECOMMENDED REFLOW SOLDERING PROFILE



NOTE: Reflow Profile with 240°C peak also acceptable.



Crystek Part Number Guide

CSO-018T X Y - 25 - 49.152

#1 #2 #3 #4 #5 #6

#1 Crystek Clock Osc.
#2 Model
#3 Temp. Range: Blank = 0/70°C, M= -20/70°C, X= -40/85°C
#4 Symmetry: Blank = (40/60), Y = (45/55)
#5 Stability: (see Table 1)
#6 Frequency in MHz: 3 or 6 decimal places

Stability Indicator

Blank (std) ± 100 ppm
50 ± 50 ppm
25 ± 25 ppm

Table 1

Example:

CSO-018TX Y-25-25.000 = 3.3V Tristate, -40/85°C, 45/55, 25ppm, 25.000 MHz
CSO-018T-50-19.660800 = 3.3V Tristate, 0/70, 40/60, 50ppm, 19.660800 MHz

Tri-state Function

Function pin 1	Output pin
Open "1" level 2.4V Min "0" level 0.4V Max	Active Active High Z

Specifications subject to change without notice.

TD-021001 Rev. H



CRYSTEK
CORPORATION

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