

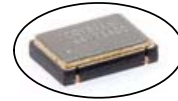
# CUSO32xx Model

3.2X5 mm SMD, 5V, CMOS



**Frequency Range:** 1.544MHz to 80MHz  
**Frequency Stability:** ±25ppm to ±100ppm  
**Temperature Range:**  
 Operating: 0°C to 70°C  
 (Option M) -20°C to 70°C  
 (Option E) -40°C to 85°C  
**Storage:** -55°C to 120°C  
**Input Voltage:** 5V ± 0.5V  
**Input Current:** <30MHz 5-30mA (freq. dependent)  
 >31MHz 15-40mA (freq. dependent)  
 Standby Mode: 10uA Max  
**Output:** CMOS  
 Symmetry: 40/60% Max @ 50% Vdd  
 Rise/Fall Time: 3ns Typ., 6ns Max  
 Logic: "0" = 10% Vdd Max  
 "1" = 90% Vdd Min  
 Load: 15pF Max  
**Jitter:** 12KHz to 20MHz 0.5ps Typ, 1ps Max RMS

# Clock Oscillator

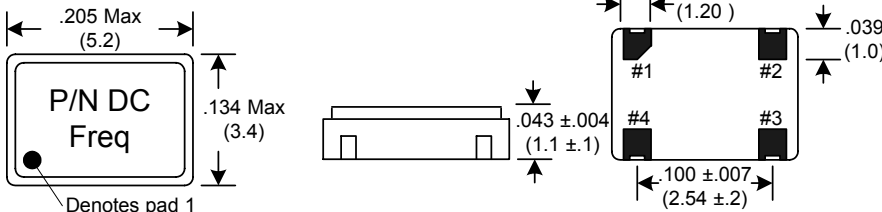


Designed to meet application requirements for smaller layout areas. The CUSO (Crystek Ultra Small Oscillator) Series utilizes fundamental and 3rd overtone crystal design thereby providing the proven performance of our larger 5x7mm package. Standby mode and Power-save Pull-up Resistance is standard. Packaged on tape and reel in quantities of 1K.

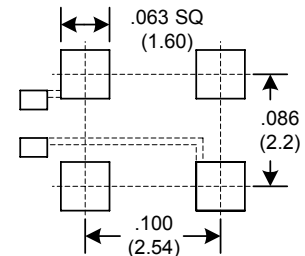
**Aging:** <3ppm 1st/yr, 1ppm every year thereafter

Dimensions inches (mm)

All dimensions are Max unless otherwise specified.

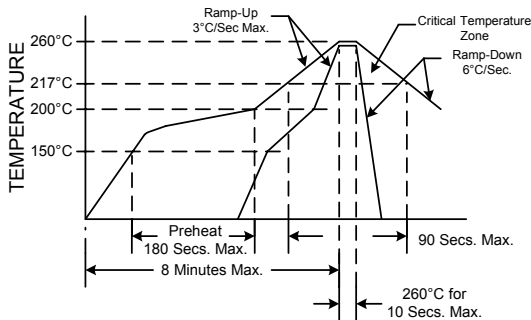


### SUGGESTED PAD LAYOUT

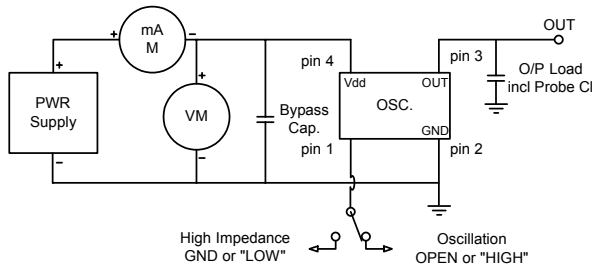


0.01uF Bypass Capacitor Recommended

### RECOMMENDED REFLOW SOLDERING PROFILE



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



### Crystek Part Number Guide

Example: CUSO3292-44.736  
 Example: CUSOM3292-44.736  
 Example: CUSOE3292-44.736

Temperature			Frequency Stability
0/ 70°C	-20/ 70°C	-40/ 85°C	
CUSO3290	CUSOM3290	CUSOE3290	+/- 100ppm
CUSO3292	CUSOM3292	CUSOE3292	+/- 50ppm
CUSO3291	CUSOM3291	CUSOE3291	+/- 25ppm

### Standby Function

Function pin 1	Output pin	Oscillator State
Open	Active	Normal Operation
"1" level .7Vcc Min	Active	Normal Operation
"0" level .3Vcc Max	High Z	Stopped

Specifications subject to change without notice.

TD-021101 Rev. D

