

# Crystek Corporation

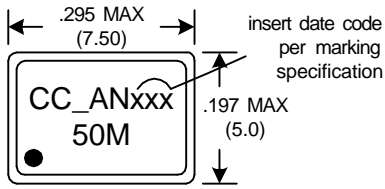
941-561-3311 FAX 941-561-1025

## 5 X 7 mm SMD HCMOS/TTL Oscillator with High Load

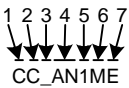
### Specification Sheet "a3"

Dimensions inches (mm)

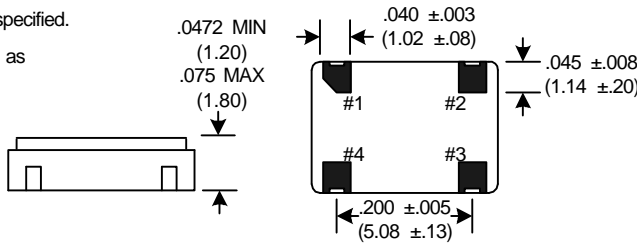
All dimensions are MAX unless otherwise specified.



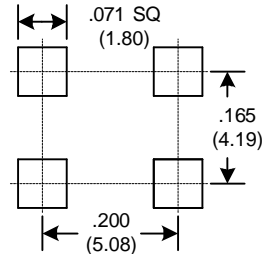
#### MARKING SPECIFICATION



- 1 Crystek Corporation
- 2 "C" Oscillator
- 3 Blank = 0/70, E = -40/85
- 4 Oscillator ID (See Table 1)
- 5 Date Code Year, i.e. 1 = 2001
- 6 Date Code Week in 2 week increments, (i.e. M = weeks 25 and 26)
- 7 Lot Code

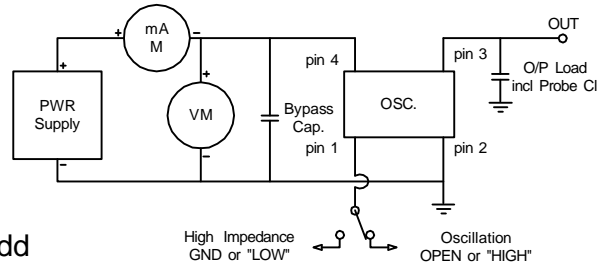


#### SUGGESTED PAD LAYOUT



#### Tri-State Function

| PIN | Function  | Function pin 1     | Output pin |
|-----|-----------|--------------------|------------|
| 1   | Tri-State | Open               | Active     |
| 2   | GND       | "1" level 2.4V MIN | Active     |
| 3   | OUT       | "0" level 0.4V MAX | High Z     |
| 4   | VDD       |                    |            |



**Frequency Range:** 1.0MHz to 125 MHz

**Part Number:** See Table 1

**Options:** Operating Temp. (Blank = 0 to 70°C)  
(E = -40 to 85°C)

**Duty Cycle:** 10 TTL @ 1.4v, CMOS @ 50% Vdd  
(40/60 % See Table 1)  
(45/55 % See Table 1)

**Frequency Stability:** See Table 1

**Input Voltage:** 5.0V ± 10%

**Input Current:** 1.0 MHz - 25.0 MHz , 35 mA max  
25.0 MHz - 50.0 MHz , 45 mA max  
50.0 MHz - 125.0 MHz , 60 mA max

**Output Level:** Vol 0.4V max , Voh 2.4V min TTL  
4.5V min CMOS

**Output Waveform:** HCMOS/TTL

**Output Load:** 50pF max

**Rise & Fall Time:** TTL, from 0.8V to 2.4V (4nSec max)  
CMOS, 15pF 20 to 80% (4nSec max)  
CMOS, 30pF 20 to 80% (6nSec max)  
CMOS, 50pF 20 to 80% (6nSec max)

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

**Jitter:** 100ps max negative transition with respect to the positive transition (pulse width)

**Storage Temperature:** -55°C to 125°C

**Note:** 0.01uF to 0.1uF External Bypass Capacitor Recommended

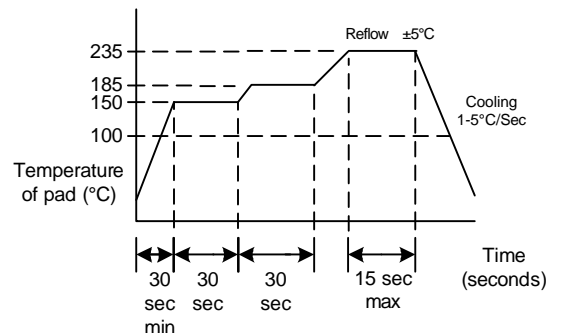
Specifications subject to change without notice.

Table 1

| Crystek Part No.          |                |                 |
|---------------------------|----------------|-----------------|
| Example: C3292-10.000MHz  |                |                 |
| Example: CE3292-10.000MHz |                |                 |
| 40/60                     | 45/55 Symmetry |                 |
| Tri-state ID              | Tri-state ID   | Freq. Stability |
| *3290 C                   | *3296 AN       | +/-100ppm       |
| *3291 P                   | *3991 BA       | +/- 25ppm       |
| *3292 D                   | *3992 BC       | +/- 50ppm       |
| C3295 BS                  | C3995 BT       | +/- 15ppm       |
| C3298 BE                  | C3998 BG       | +/- 20ppm       |

\* C = 0/70, \* CE = -40/85

#### RECOMMENDED REFLOW SOLDERING PROFILE



|       |    |
|-------|----|
| Spec. | a3 |
| Rev.  | A  |