

## FREQUENCY STABILITY

### OVER:

OPERATING TEMP. RANGE: See note 1

OVERALL STABILITY:  $< \pm 100\text{ppm}^*$

### INCLUDING:

- OVER OPERATING TEMPERATURE RANGE
- ADJUSTMENT @ 25°C
- LONG TERM AGING (10 YEARS)
- STABILITY OVER SUPPLY VOLTAGE  $\pm 5\%$
- STABILITY OVER LOAD (MIN. TO MAX.)

## POWER SUPPLY

SUPPLY VOLTAGE:  $V_{dd} = 3.3\text{V} \pm 5\%^*$

INPUT CURRENT:  $< 10\text{mA}^*$

## OUTPUT

OUTPUT SIGNAL: HC-MOS compatible \*

SYMMETRY: 40 / 60% (min.) @  $V_{dd} / 2^*$

RISE & FALL TIME:  $t_r < 7\text{ns}$   $t_f < 7\text{ns}^*$

LEVEL "0" & "1":  $< 0.4\text{V}$   $> V_{dd} - 0.5\text{V}$

START-UP TIME:  $< 5\text{ms}$

FAN OUT (LOAD): 10 TTL / LS \*

## ENVIRONMENT

OPERABLE TEMP. RANGE:  $-55$  to  $+125^\circ\text{C}$

STORAGE TEMP. RANGE:  $-65$  to  $+125^\circ\text{C}$

VIBRATIONS: 10 to 2000Hz / 10g

SHOCKS: 5000g, 0.3ms,  $\frac{1}{2}$  sine

PACKAGE: Ceramic

PACKAGE DIMENSIONS: 14.1 x 9.3 x 2.4mm

(see packaging info)

PROCESSING: Reflow soldering  $260^\circ\text{C}$  / 10s max.  
(see packaging info)

## MISCELLANEOUS

\* Customer's specification on request

## Note 1: Operating Temperature Range

MCSOV-A: 0 to  $+70^\circ\text{C}$

MCSOV-B:  $-40$  to  $+85^\circ\text{C}$

MCSOV-C:  $-55$  to  $+125^\circ\text{C}$

## Option 1: Enable / Disable (on request)

See application circuit on page 2 for details

Pin 1: Pin 3 (Fout)::

Open Clock

H Clock

L High Z

Not available for  $f < 500\text{kHz}$

## Option 2: J / Leads (on request)

With tinned J / Leads pins

Height: 3.8mm included J / Leads

## Marking Example



MCSOV-B

E/D

20.000 MHz

05.44

O



Type

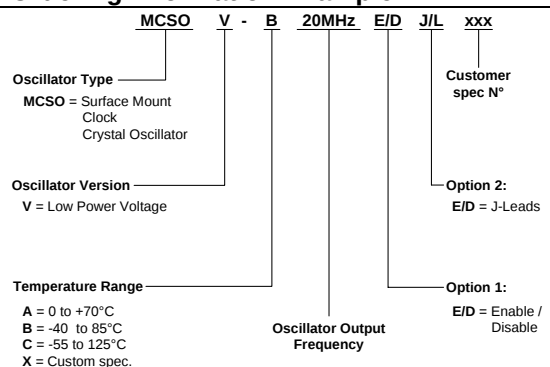
Option 1

Frequency

Date Code

O (PIN 1)

## Ordering Information Example



## STANDARD FREQUENCIES [MHz]

|         |         |         |         |         |                |
|---------|---------|---------|---------|---------|----------------|
| 10.0000 | 10.1500 | 10.2300 | 10.2400 | 11.0592 | 12.0000        |
| 12.2880 | 12.8000 | 13.0000 | 14.7456 | 16.0000 | 16.3840        |
| 18.4320 | 19.2000 | 19.6608 | 20.0000 |         | & sub multiple |

|        |           |                  |                       |
|--------|-----------|------------------|-----------------------|
| Date : | June 2003 | Revision No. : 7 | Revision Date : 11-05 |
|--------|-----------|------------------|-----------------------|

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In accordance with our policy of continuous development and improvement,  
we reserve the right to modify the design or the specifications of our products without prior notice.

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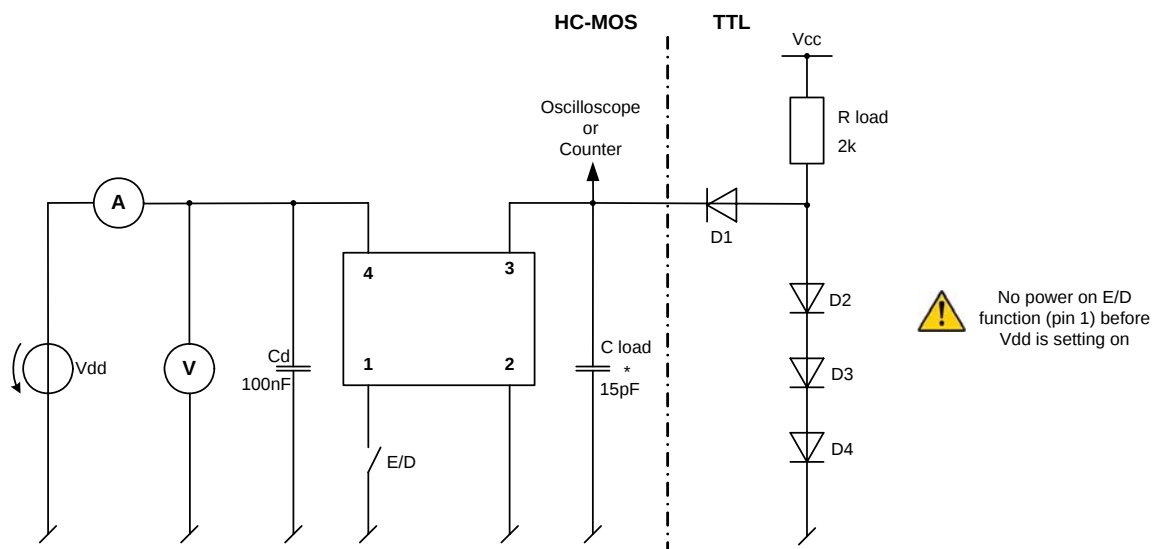
Internet

www.microcrystal.ch

Email

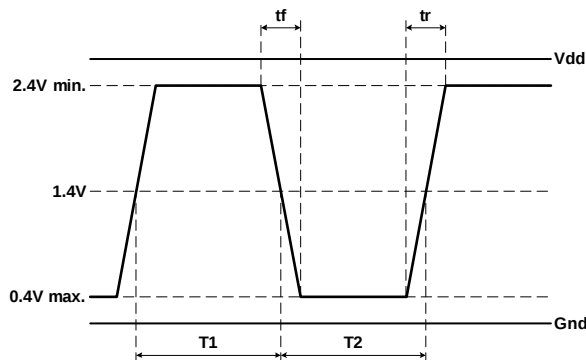
sales@microcrystal.ch

## Application and Test Circuit:

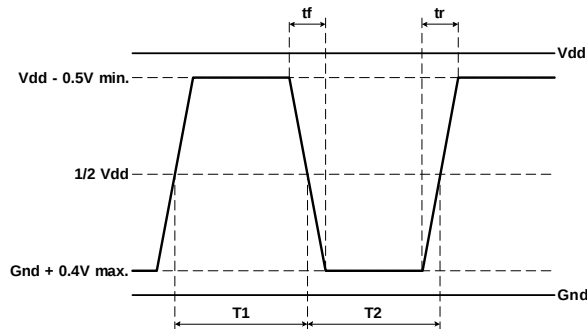


## Waveform Output:

### Waveshape TTL



### Waveshape HC-MOS



$$\text{Duty Cycle} = 100 \times \frac{T1}{T1 + T2} [\%]$$

|        |           |                  |                       |
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