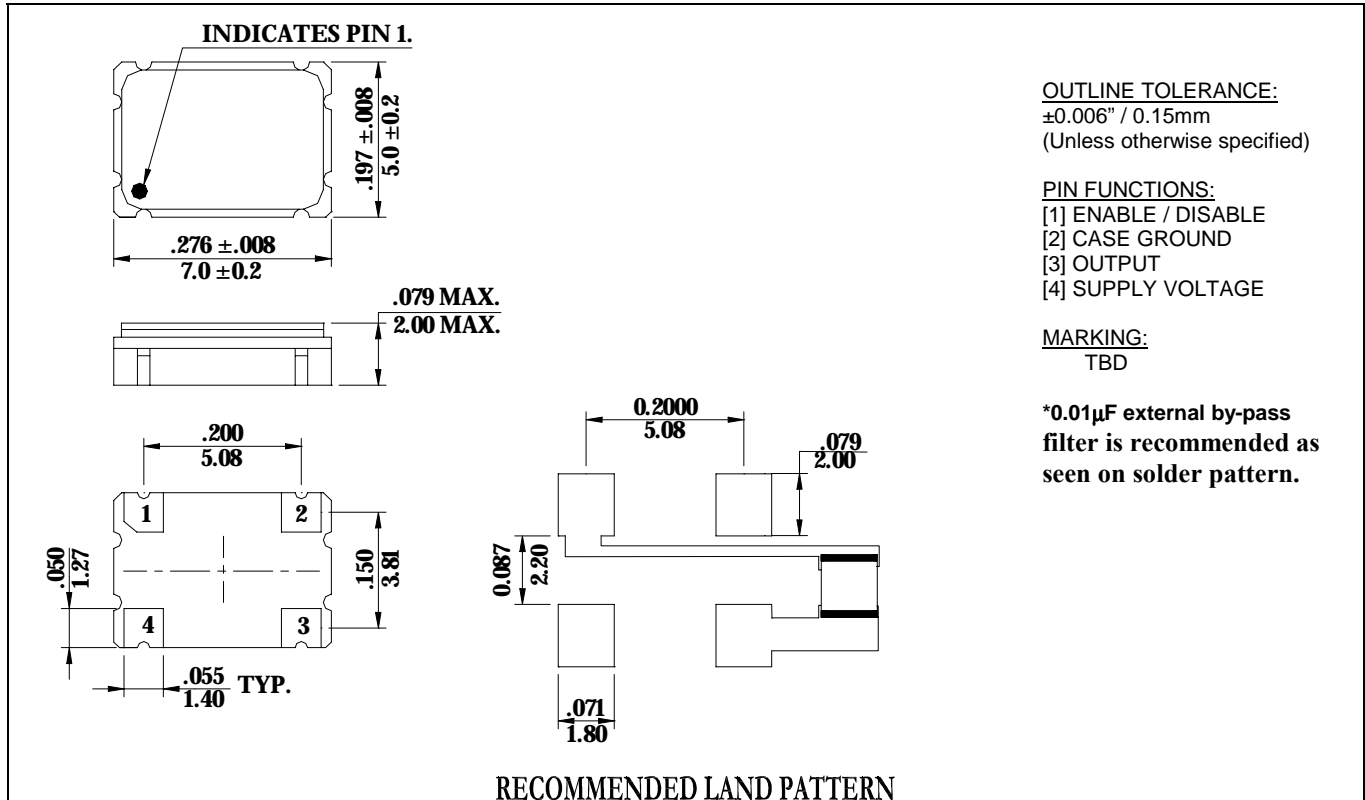


ULTRA LOW VOLTAGE 5X7 HCMOS CLOCK (see below for part numbering scheme)

■ APPROVALS

| RAMI | CUSTOMER |
|-----------------------------------|-----------------------|
| Eng. approval, date: CHUCK 7/8/03 | Name (please print): |
| Sales approval, date: | Title (please print): |
| Created by, date: C.VALES 7/8/03 | Signature, date: |
| Revision: | |

■ MECHANICAL SPECIFICATION

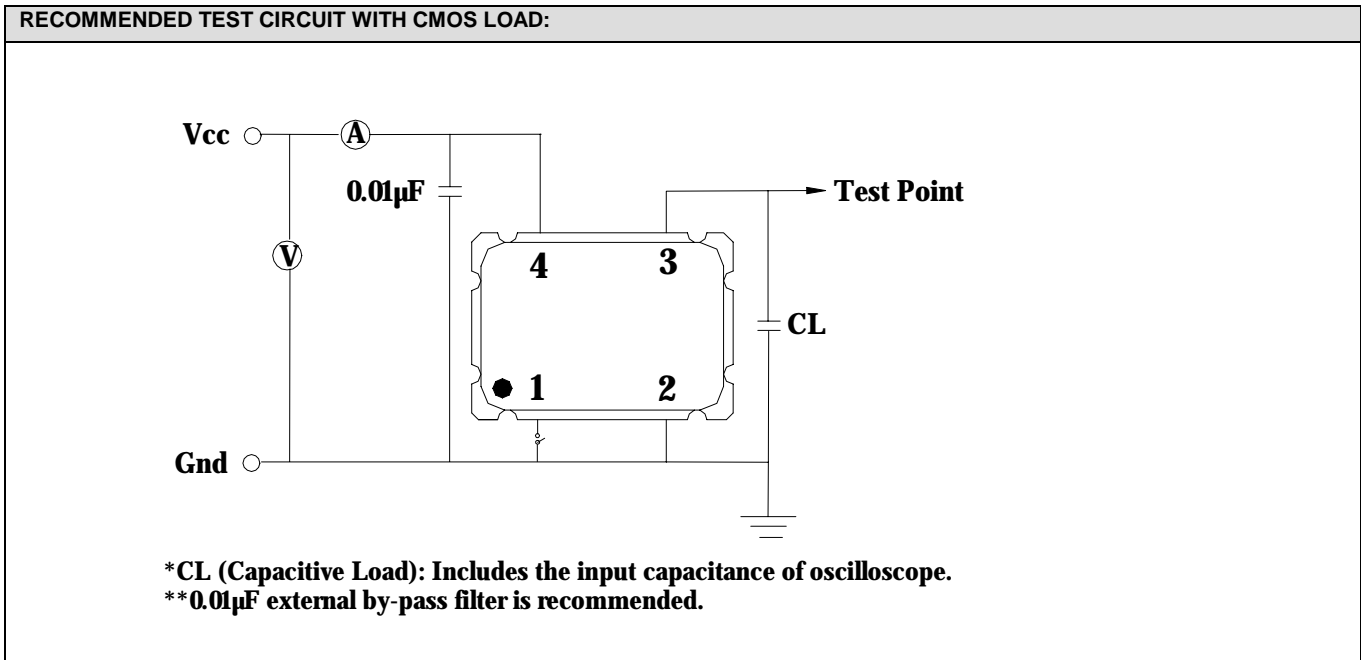
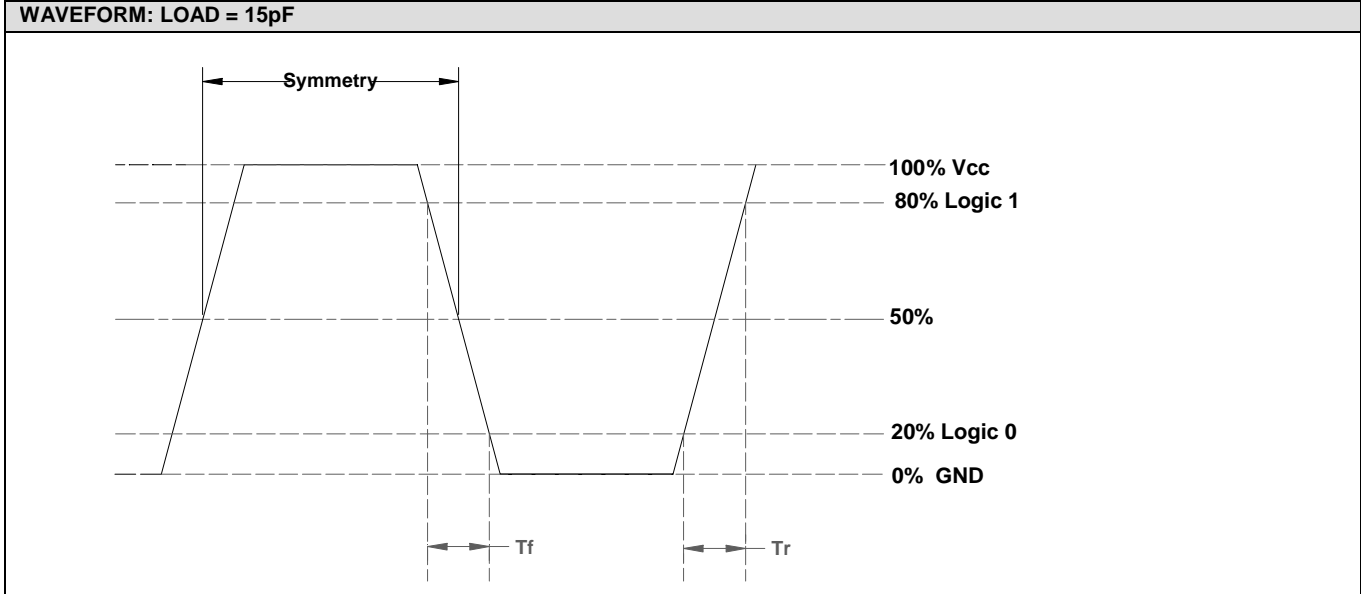


■ ELECTRICAL SPECIFICATION

| PARAMETER | SYMBOL | CONDITIONS | VALUE | UNIT |
|-------------------------------|------------|--|--|--------|
| Frequency, nom | fo | - | 20.000~70.000 | MHz |
| Supply voltage, nom. | Vcc | Vcc±5% | SEE PART NUMBER GENERATION TABLE | V |
| Supply current, max. | Is | Vcc=1.6...2.0VDC, Ta=+25°C, load=15pF | 5.0 | mA |
| HCMOS output levels | VOH VOL | Vcc=1.6...2.0VDC, load=15pF Vcc=1.6...2.0VDC, load=15pF | 1.1 min. (1.3 typ.) 0.4 max. (0.3 typ.) | V V |
| Duty cycle | DC | load=15pF / @50%Vcc, Ta=+25°C | 40...60 | % |
| Rise- / fall time, max. | tr / tf | 20%~80% Vout, 80%~20% Vout | 1.0...3.5 (SEE NOTE A) | ns |
| Jitter, rms, max. | J | 1σ, Fj = 12KHz...20MHz | 1.0 | ps |
| Overall freq. stability, max. | Δf/fc | Including temperature, 10 year aging, +/-5% load & supply variations, and calibration @ +25°C. | SEE PART NUMBER GENERATION TABLE | ppm |
| Enable option (pin 1) | En | High or open (min.) | 0.7Vcc | V |
| Disable option (pin 1) | Dis | Ground (output pin high impedance) (max.) | 0.3Vcc | V |
| Operating temperature range | Ta | Vcc=1.6...2.0VDC, Ta=+25°C, load=15pF | SEE PART NUMBER GENERATION TABLE | °C |
| Storage temperature range | T(stg) | - | -55...+125 | °C |
| Absolute voltage range | Vcc(abs) | Non-destructive, DC | -0.5...+3.6 | V |

4/2/02 marketing-rfq, vcxo, Cx90ns

NOTE A: RISE AND FALL TIMES ARE FREQUENCY DEPENDENT.



■ **PART NUMBER GENERATION**

| SERIES | SYMMETRY | TEMPERATURE RANGE (°C) | STABILITY (Overall) | FREQUENCY (MHz) | SUFFIX |
|---|--------------|--|---|-----------------|-------------------|
| CSL: 1.6V HCMOS CSJ: 1.8V HCMOS CSK: 2.0V HCMOS | A: 40%...60% | R: 0...+50 S: 0...+70 U: -20...+70 X: -20...+80 | H: ±50 ppm J: ±100 ppm (See note 1 below) | 20.000...70.000 | TR (TAPE/REEL) |

4/2/02 marketing-rfq, vcxo, Cx90ns

NOTE 1:

Variations from standard specification are available, please contact factory.

EXAMPLE: CSLASH-44.736-TR