

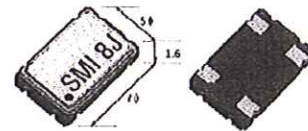
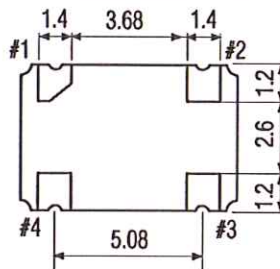
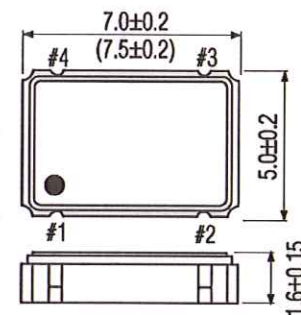
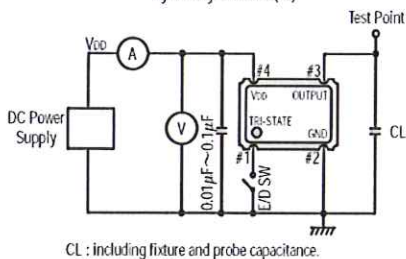
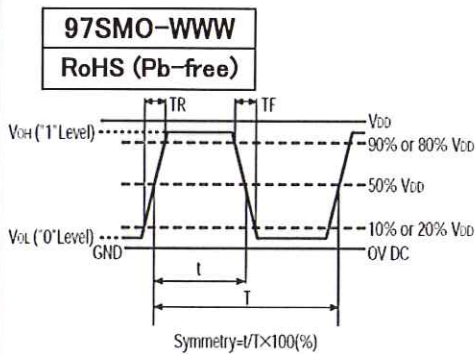
TITLE

OSCILLATOR SPECIFICATIONS

DATE

Feb. 16, 2009

1. Part No. : 97SMO-WWW
2. Frequency range : 1.0000 MHz to 40.0000 MHz
3. Frequency stability : ± 150 ppm ($\pm 0.015\%$) over all conditions
4. Operating Conditions
 - Operating temperature : -40°C to $+125^{\circ}\text{C}$
 - Storage temperature : -55°C to $+125^{\circ}\text{C}$
 - Input voltage (V_{DD}) : $+3.0\text{V}$, $+3.3\text{V}$ or $+5.0\text{V}$
 - Tri-state control voltage : $70\%V_{DD}$ min. (V_{IH})
 $30\%V_{DD}$ max. (V_{IL})
5. Input current : 17 mA max. ($V_{DD} = +3.0\text{V}$ or $+3.3\text{V}$)
 26 mA max. ($V_{DD} = +5.0\text{V}$)
6. Output (-40°C to $+125^{\circ}\text{C}$)
 - Symmetry : 45% to 55% at $1/2V_{DD}$ level
 - Rise and fall times : 11 ns max. ($10\%V_{DD}$ to $90\%V_{DD}$ level)/ $V_{DD} = +3.0\text{V}$ & $+3.3\text{V}$
 5 ns max. ($10\%V_{DD}$ to $90\%V_{DD}$ level)/ $V_{DD} = +5.0\text{V}$
 - "0" level : $V_{OL} : 0.5\text{V}$ max.
 - "1" level : $V_{OH} : 2.1\text{V}$ min. ($V_{DD} = +3.0\text{V}$ & $+3.3\text{V}$)
 $V_{OH} : 3.9\text{V}$ min. ($V_{DD} = +5.0\text{V}$)
 - Output load : CMOS 15 pF max.
7. Stand-by current : 5 μA max. ($V_{DD} = +3.0\text{V}$ & $+3.3\text{V}$)
 15 μA max. ($V_{DD} = +5.0\text{V}$)
8. RMS jitter (12 kHz to 20 MHz band) : 1 ps max.
9. Start-up time : 10 ms max.
10. Aging : ± 5 ppm max. at $+25^{\circ}\text{C} \pm 3^{\circ}\text{C}$ for first year
11. Disable phase delay time : 100 ns max.
12. Enable phase delay time : 10 ms max.
13. Reflow soldering condition : $+250^{\circ}\text{C} \pm 10^{\circ}\text{C}$ for 10 seconds (reflow soldering)
 $+170^{\circ}\text{C} \pm 10^{\circ}\text{C}$ for 1 or 2 minutes (preheating)
14. Outline dimensions : See below

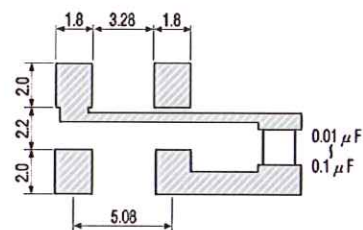


OSC WITH TRI-STATE

PIN	CONNECTION
1	"L" OPEN or "H"
2	GND
3	Z OUTPUT
4	V_{DD}

Z : high impedance

SOLDERING PATTERN



mm

ISSUED

CHECKED

APPROVAL

SMI
'09/02/16
佐々木

H. Sasakawa

SMI
'09/02/16
エドワード

Edwards

SMI
'09/02/16
三浦

[Signature]

SMI

ITEM.

CRYSTAL CLOCK OSCILLATORS

No.

SO-9968A