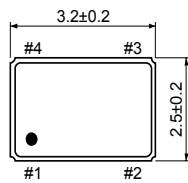
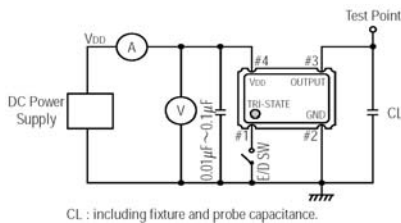
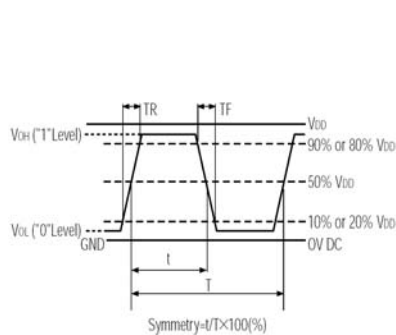
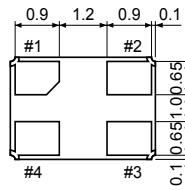
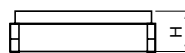


1. Part No. : 32SMO
2. Output frequency range : 0.75000 MHz to 50.0000 MHz
3. Frequency stability : 32SMO(A): ±100 ppm over -20°C to +70°C
32SMO(B): ±50 ppm over -20°C to +70°C
32SMO(C): ±30 ppm over -20°C to +70°C
32SMO(D): ±25 ppm over -10°C to +70°C
32SMO(E): ±20 ppm over 0°C to +70°C
4. Operating Conditions
 - Operating temperature : -20°C to +70°C (Standard)
-40°C to +85°C (W)
 - Storage temperature : -55°C to +100°C
 - Input voltage (V_{DD}) : +0.8V to +2.0V
5. Input current : 5.0 mA max.
6. Stand-by current : 100 µA max. (Pin#1=ViL)
7. Output (-20°C to +70°C)
 - Symmetry : 45% to 55% at 1/2 V_{DD} level
 - Rise and fall times : 4.0 ns max. (20%V_{DD} to 80%V_{DD} level)
 - "0" level : VoL: +0.2Vmax (V_{DD}=+0.8V)/+0.3Vmax (V_{DD}=+1.1V)/+0.4Vmax (V_{DD}=+1.4V)
 - "1" level : VoH: +0.2Vmin (V_{DD}=+0.8V)/+0.8Vmin (V_{DD}=+1.1V)/+1.0Vmin (V_{DD}=+1.4V)
 - Output load : CMOS 15pF max.
8. Tri-state control voltage : 70%V_{DD} min. (ViH)
30%V_{DD} max. (ViL)
9. Start-up time : 10 ms max.
10. Aging : ±5 ppm max. at +25°C ±3K for first year
11. Enable/Disable phase delay time : 100 ns max.
12. Reflow soldering condition : +250°C ±10K for 10 seconds (reflow soldering)
+170°C ±10K for 1 to 2 minutes (preheating)
13. Outline dimensions : See below



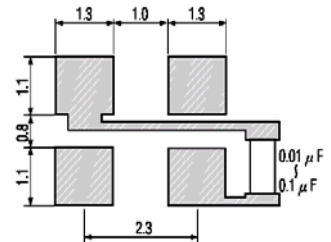
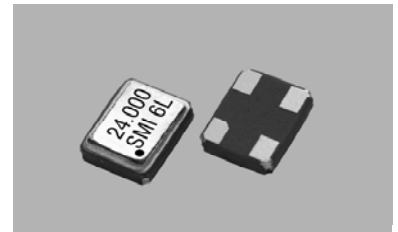
□H=1.1 ±0.1mm



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

Z : high impedance

32SMO
RoHS compliant (Pb-free)



mm

ISSUED

CHECKED

APPROVAL

SMI
09/04/07

Yagisawa

SMI
09/04/07

Edward

SMI
09/04/07

[Signature]

SMI

ITEM.

LOW VOLTAGE OPERATION CRYSTAL CLOCK
OSCILLATORS(V_{DD}=+0.8V to +2.0V)

No.

SO-9980A