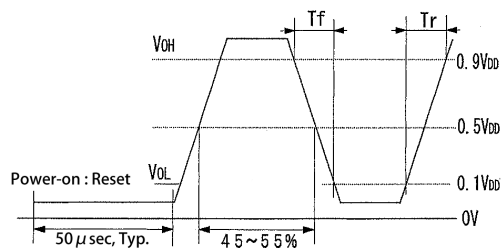
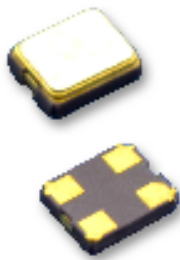


**New**

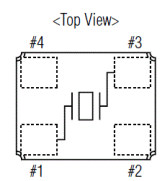
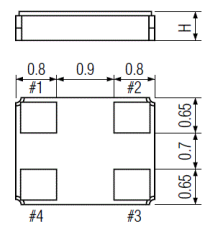
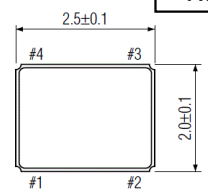
- High Shock Resistance
- Wide Operable Temperature Range
- Always Quick Start-up Operation From Low Level
- Custom-make Frequency 0.5Hz to 500MHz

<h1 style="margin: 0;">OSCILLATOR SPECIFICATIONS</h1>	<p>DATE</p> <p style="font-size: 1.2em;">Apr. 19, 2011</p>
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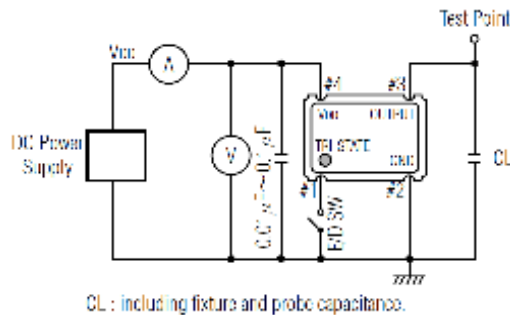
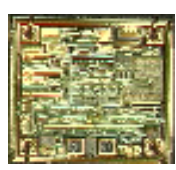
- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. Part No. :</li> <li>2. Nominal frequency :</li> <li>3. Frequency stability :</li> <li>4. Operating Conditions             <ul style="list-style-type: none"> <li>Operating temperature :</li> <li>Operable temperature:</li> <li>Storage temperature :</li> <li>Input voltage (<math>V_{DD}</math>) :</li> </ul> </li> <li>5. Input current :</li> <li>6. Output             <ul style="list-style-type: none"> <li>Symmetry :</li> <li>Rise and fall times :</li> <li>"0" level :</li> <li>"1" level :</li> <li>Output load :</li> </ul> </li> <li>7. Tri-state control voltage :</li> <li>8. Start-up time :</li> <li>9. Stand-by current :</li> <li>10. Shock resistance :</li> <li>11. Disable phase delay time :</li> <li>12. Enable phase delay time :</li> <li>13. Reflow soldering condition :</li> <li>14. Outline dimensions :</li> </ol> | <p>22CMO(3.3V)-32.768K</p> <p>32.768 kHz</p> <p><math>\pm 200\text{ppm}</math>, Typical over all conditions<br/> <math>\pm 500\text{ppm}</math> max. over all conditions</p> <p>-20°C to +70°C<br/>         -55°C to +125°C<br/>         -40°C to +85°C</p> <p>+3.3V DC <math>\pm 2\%</math></p> <p>15 <math>\mu\text{A}</math> max.</p> <p>45% to 55% at 1/2 <math>V_{DD}</math> level</p> <p>20 ns max. (10%<math>V_{DD}</math> to 90%<math>V_{DD}</math> level)</p> <p>10%<math>V_{DD}</math> max.(<math>V_{OL}</math>)</p> <p>90%<math>V_{DD}</math> min.(<math>V_{OH}</math>)</p> <p>CMOS 15pF max.</p> <p><math>V_{DD} \times 0.9</math> min.(<math>V_{IH}</math>)<br/> <math>V_{DD} \times 0.1</math> max.(<math>V_{IL}</math>)</p> <p>1 ms max.</p> <p>1 <math>\mu\text{A}</math> max. (Pin#1=<math>V_{IL}</math>)</p> <p>20000GS</p> <p>50 <math>\mu\text{s}</math> max.</p> <p>1 ms max.</p> <p>+250°C <math>\pm 10^\circ\text{C}</math> for 10 seconds (reflow soldering)<br/>         +170°C <math>\pm 10^\circ\text{C}</math> for 1 to 2 minutes (preheating)</p> <p>See below</p> |
|---|---|



**22CMO**  
RoHS compliant (Pb-free)



(#2 & #4: Grounded to metal lid)



CL : including fixture and probe capacitance.

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

Z : high impedance

mm