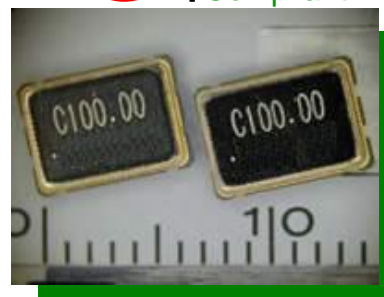


### LVDS SMD Oscillator 7.0mm x 5.0mm Package



**RoHS**  
Compliant



### Features

- LVDS Complementary output
- Low phase jitter ( 12KHz to 20MHz ) under 4 ps ( RMS )
- Low profile package design ( **1.9mm height max.** )
- Special side-pad design for **jitter improvement option** ( patent applying )
- RoHS compliance

### Electrical Specifications

Frequency Range		1.000 to 625.000	MHz
Frequency Stability		± 100 to ±25	PPM Max
Aging per Year		±3 / per year	
Operating Temperature Range	Standard	-20 to +70	°C
	Extended	-40 to +85	
Storage Temperature Range		-55 to +125	
Supply Voltage		+2.5 ± 5%      3.3V ± 5%	
Input Current		80	mA Max
Output Voltage	0 Level (Vol)	Vcc-2.175	Vdc Max
	1Level (Voh)	Vcc-1.925	Vdc Min
Output Symmetry	Standard	40 to 60	%
	Tight	45 to 55	
Output Load		50Ω Differential Load	
Rise and Fall Time		1.0	ns Max
Start up time		10	ms Max
Tri-state Output (pin1)		High or Open : OSC, Low : High Impedance	
Phase Jitter (12KHz ~ 20MHz)		1ps RMS Max	

### Phase Jitter

1MHz ≤ F ≤ 200MHz : 1ps RMS max

200.001MHz < F ≤ 625MHz : 3ps RMS max (12KHz ~ 20MHz)

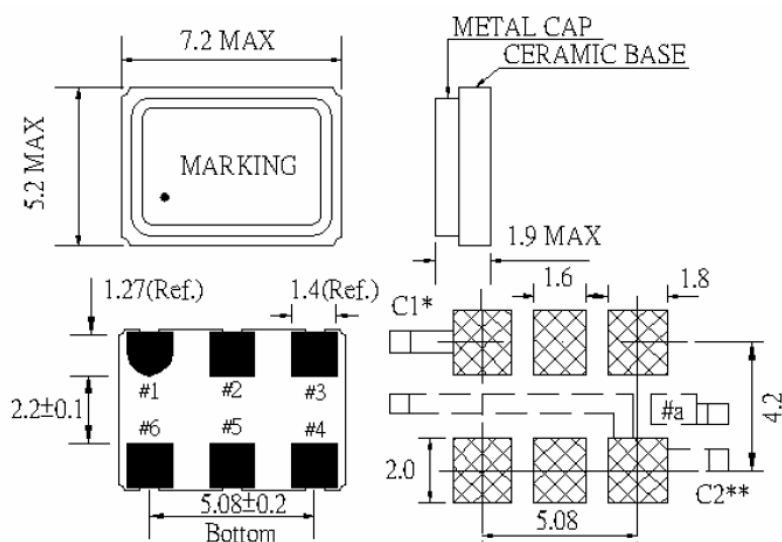
Temperature stability is inclusive of all Conditions : Calibration Tolerance at +25 °C, frequency stability over the operation temperature range , supply voltage, supply voltage change, output load change, shock, vibration, and 1<sup>st</sup> year aging at +25 °C

### Part Numbering System

Type	Frequency Stability (PPM)		Supply Voltage (Vdd)		Frequency (MHz)	Duty Cycle (*1)		Extended Temperature (*1)	Tape & Reel
	10 05 02	± 100 ± 50 ± 20	33 25	+ 3.3 + 2.5		T	45/55%		
WSO70LD	10 05 02	± 100 ± 50 ± 20	33 25	+ 3.3 + 2.5	1.000 to 625.000	T	45/55%	EXT	TR

**Example :** WSO70LD10-33-24.576-T-EXT-TR  
 WSO70LD05-50-50.000-EXT-TR  
 WSO70LD02-33-32.000-TR

### Mechanical Outline

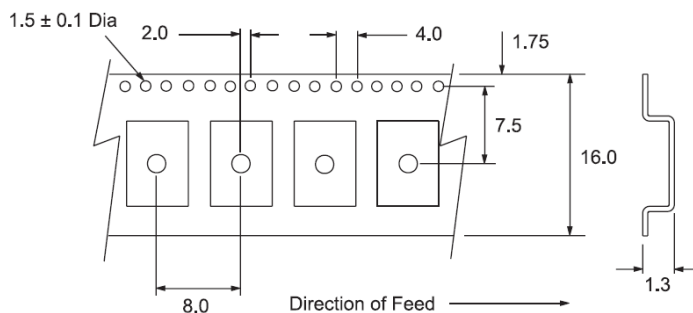


Pin	Function
1	E/D
2	N/C
3	Ground
4	Output
5	Comp. Output
6	VCC

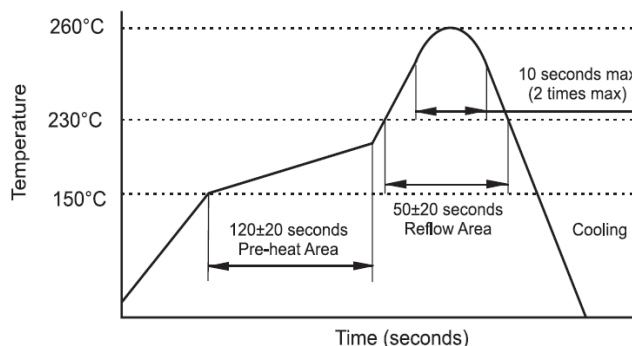
Enable / Disable Function	
Input (#1)	Output (#3, #4)
High (Open)	Operating
Low	High Impedance

C1: 0.01uF or 0.1uF decoupling capacitor is recommended  
 C2: By-pass capacitor for the noise suppression

### Carrier Tape Dimensions



### Solder Reflow Characteristics



#### Notes:

- 1 - Standard Duty Cycle, Standard Temperature Range and Standard Pin Connection, do not need to be included in Part Number description.
- 2 - Product is shipped in Tape and Reel configuration. Each reel contains 1000 pieces.
- 3 - Specification subject to change without notice.