

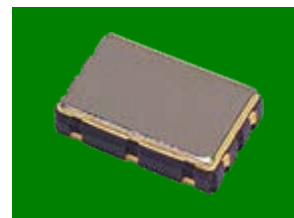
LVDS SMD Oscillator 5.0mm x 3.2mm Package



RoHS
Compliant

Features

- LVDS Complementary output
- Low phase jitter (12KHz to 20MHz) under 1ps (RMS)
- Low profile package design (**1.3mm height max.**)
- Special side-pad design for **jitter improvement option** (patent applying)
- RoHS compliance



Electrical Specifications

Frequency Range		77.000 to 160.000	MHz
Frequency Stability		± 100 to ±25	PPM Max
Aging per Year		±3 / per year	
Operating Temperature Range	Standard	0 to +70	°C
	Extended	-40 to +85	
Storage Temperature Range		-55 to +125	
Supply Voltage		+2.5 ± 5% 3.3V ± 10%	
Input Current		65	mA Max
Output Voltage	0 Level (Vol)	1.600	Vdc Max
	1Level (Voh)	0.900	Vdc Min
Output Symmetry	Standard	40 to 60	%
	Tight	45 to 55	
Output Load		100Ω Differential Load	Ω
Offset Voltage Vos		1.125 ~ 1.375	V
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

77MHz ≤ F ≤ 160MHz : 1ps RMS max

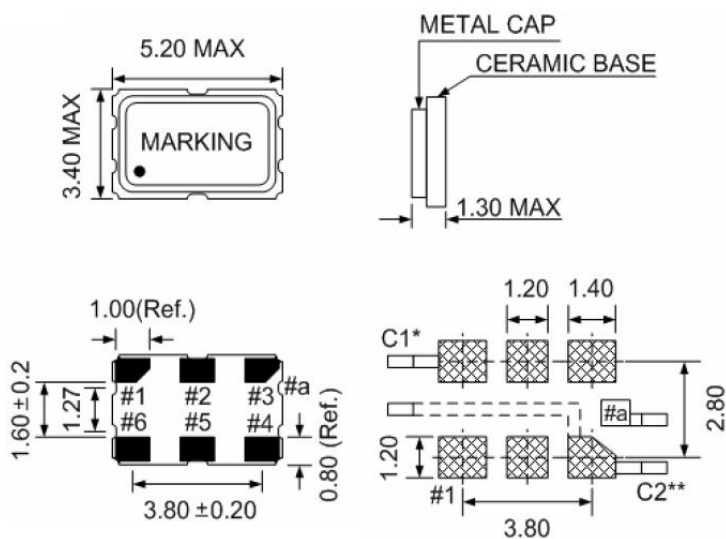
Temperature stability is inclusive of all Conditions : Calibration Tolerance at +25 °C, frequency stability over the operation temperature range , supply voltage, supply voltage change, output load change, shock, vibration, and 1st year aging at +25 °C

Part Numbering System

Type	Frequency Stability (PPM)		Supply Voltage (Vdd)		Frequency (MHz)	Duty Cycle (*1)		Extended Temperature (*1)	Tape & Reel
WSO50LD	10	± 100	33 25	+ 3.3 + 2.5	77.000 to 160.000	T	45/55%	EXT	TR
	05	± 50							
	02	± 20							

Example : WSO50LD10-33-24.576-T-EXT-TR
 WSO50LD05-50-50.000-PC2--TR
 WSO50LD02-33-32.000-TR

Mechanical Outline

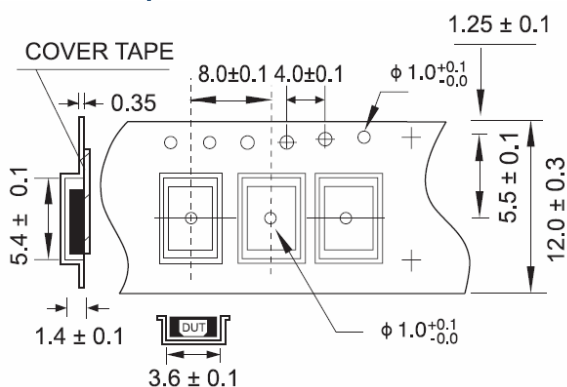


Pin	Function
1	E/D
2	N/C
3	Ground
4	Output
5	Comp. Output
6	VCC

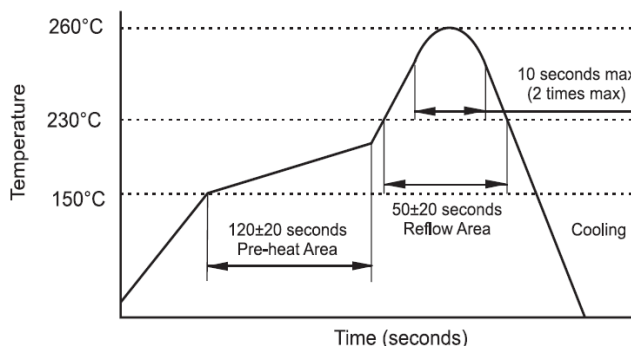
Enable / Disable Function	
Input (#1)	Output (#3, #4)
High (Open)	Operating
Low	High Impedance

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.