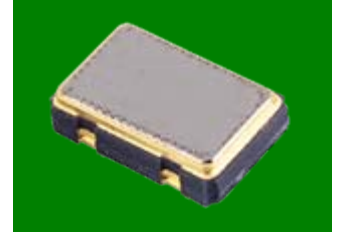


## Clock Oscillator Unit 3.2 x 2.5mm SMD Package

### Features

- Small Package
- Excellent for high density packaging
- Suitable for reflow soldering
- Rohs Compliant



### Electrical Specifications

Frequency Range		1.000 to 75.000			MHz
Temperature Stability		±100			PPM Max
		±50			
		±20			
Aging Per Year		±5			
Operating Temperature Range	Standard	-10 to +70			°C
	Extended	-40 to +85			
Storage Temperature Range		-55 to +125			
Supply Voltage		1.8 ±5%	2.5 ±5%	3.3 ±5%	Vdd
Input Current	1.000 – 32.000MHz	7	20	20	mA Max
	32.100 – 50.000MHz	15	20	25	
	50.100 – 60.000MHz	15	20	25	
	60.000 – 75.000MHz	15	20	25	
Output Voltage	Logic Low (Voh)	90% (80% at 1.8V)			Vdd Min
	Logic High (Vol)	10% (20% at 1.8V)			Vdd Max
Output Symmetry (Duty Cycle)	Standard	40 – 60			%
	Tight	45 – 55			
Output Current	Lol/Loh	2			mA Min
Output Load		15			pF Max
Rise and Fall Time	1.000 – 32.000MHz	5	6	6	ns Max
	32.100 – 50.000MHz	3.5	6	6	
	50.100 – 67.000MHz	3.5	10	10	
	67.100 – 75.000MHz	3.5	10	10	
Standby Current		10			uA Max
Enable-Disable Function		Tri-state			-
Output Disable Time		300	150		ns Max
Output Enable Time		10	10		ms Max
Start Up Time		5 (10 at 1.8Vdd)			ms Max

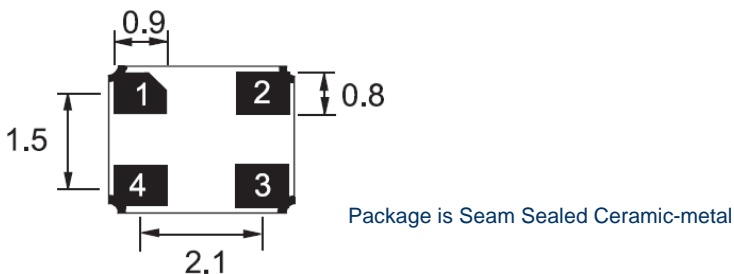
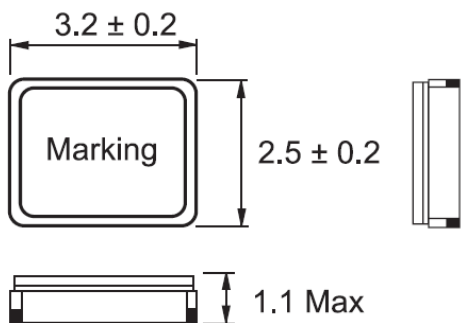
Temperature stability is inclusive of all Conditions : Calibration Tolerance at +25 °C, frequency stability over the operation temperature range , supply voltage, supply voltage change, output load change, shock, vibration, and 1<sup>st</sup> year aging at +25 °C

### Part Numbering System

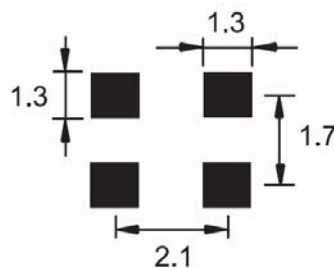
Type	Frequency Stability (PPM)		-	Supply Voltage (V <sub>dd</sub> )		-	Frequency (MHz)	-	Duty Cycle (*1)		-	Extended Temperature (*1)		-	Tape & Reel
	10	± 100		33	+ 3.3 ± 10%		1,000 to 75,000		T	45/55%		EXT	TR		
WSO32	05	± 50		28	+ 2.85 ± 5%										
	02	± 20		25	+ 2.5 ± 5%										
				18	+ 1.8 ± 5%										

**Example :** WSO3210-33-24.576-TR, WSO3205-33-50.000-EXT-TR, WSO3202-33-32.000-T-EXT-TR

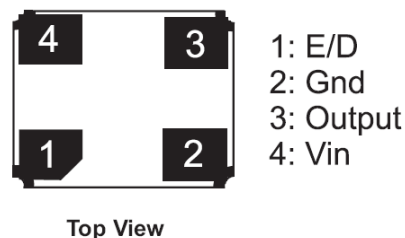
### Mechanical Outline



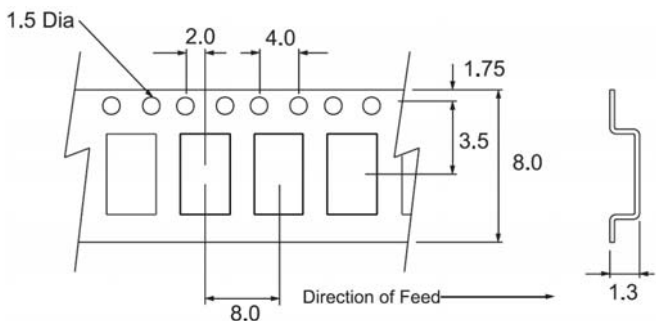
### PCB Solder Pad layout



### PCB Connection

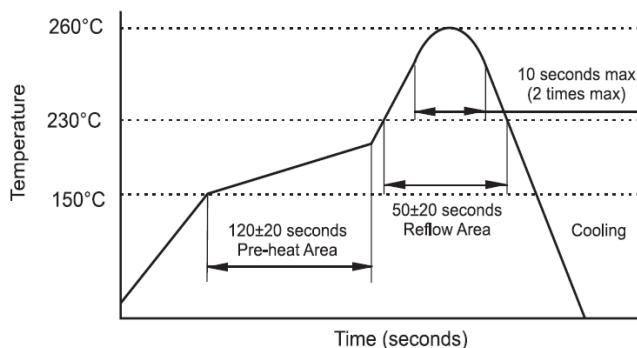


### Solder Reflow Characteristics



(Dimensions are millimeters)

### Carrier Tape Dimensions



- Notes:
- 1 - Standard Duty Cycle and Temperature Range 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.