

## Specification

### Frequency Characteristics

	Parameter	Min.	Typ.	Max.	Units	Test Condition
1-1	Nominal Frequency		16 320000		MHz	
1-2	Nominal Frequency Tolerance	-2.0		+2.0	ppm	Frequency at 25 °C, 1 hour after 2 times reflow.
1-3	Frequency stability over temperature	-0.5		+0.5	ppm	Referenced to the frequency at 25°C.
1-4	Temperature range	-40		+85	°C	The operating temperature range over which the frequency stability is measured
1-5	Supply voltage stability	-0.2		+0.2	ppm	Supply voltage varied ±5% at 25°C
1-6	Load sensitivity	-0.2		+0.2	ppm	±10% load change
1-7	Aging	-1.0		+1.0	ppm	first year at 25 °C

### Power Supply

	Parameter	Min.	Typ.	Max.	Units	Test Condition
2-1	Supply voltage	3.135	3.3	3.465	V	
2-2	Supply current			3.5	mA	At maximum supply voltage

### Control Voltage

	Parameter	Min.	Typ.	Max.	Units	Test Condition
3-1	Control voltage range	0.5	1.5	2.5	V	
3-2	Pulling range	±5.0			ppm	Referenced to VCON at 1.5V
3-3	Vcon input impedance	100			kOhm	Measured between VCON and GND pin
3-4	Linearity			10.0	%	

## Oscillator Output

	Parameter	Min.	Typ.	Max.	Units	Test Condition
4-1	Output waveform		Clipped sine wave			DC Couple Clipped sine wave
4-2	Output voltage level	0.8		2.0	Vp-p	
4-3	Output load		10Kohm//10pF			
4-4	Start time			2.0	ms	

## Phase Noise @ 25 °C

	Parameter	Min.	Typ.	Max.	Units	Test Condition
5-1	10 Hz offset			-85	dBc/Hz	
5-2	100 Hz offset			-115	dBc/Hz	
5-3	1 KHz offset			-135	dBc/Hz	
5-4	10 KHz offset			-150	dBc/Hz	
5-5	100 KHz offset			-152	dBc/Hz	

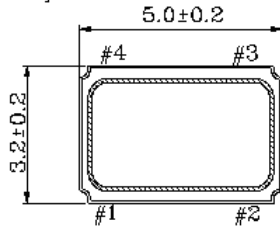
## Environmental

	Parameter	Reference Std.	Test Condition
6-1	Vibration Test	MIL-STD-883 2007 Condition A JESD22-B103 Condition 1	10~2000Hz, 1.52mm, 20G, each axis for 4 hrs
6-2	Thermal Shock	MIL-STD-883 1010 Condition B JESD22-A104 Condition B	-55°C, 125°C; soak time is 10 mins, with total 200 cycles
6-3	Mechanical Shock	MIL-STD-883 2002 Condition B JESD22-B104 Condition B	1500G, half-sine, 0.5ms, each axis for 3 times.
6-4	Storage temperature		-55 °C to +125°C

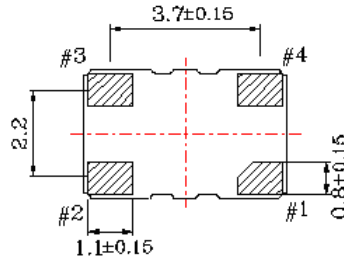
## Physical Dimensions and PIN Connections

Unit : mm

[ TOP VIEW ]

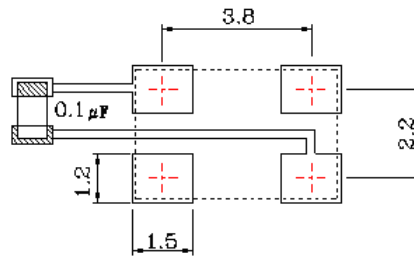
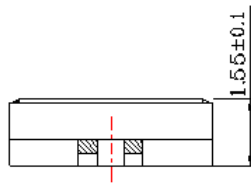


[ BOTTOM VIEW ]



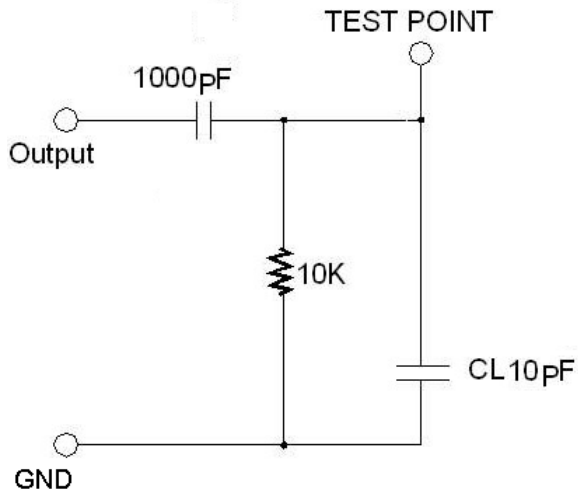
Pin	Function
#1	Control Voltage
#2	GND
#3	Output
#4	Supply Voltage

[ SIDE VIEW ]

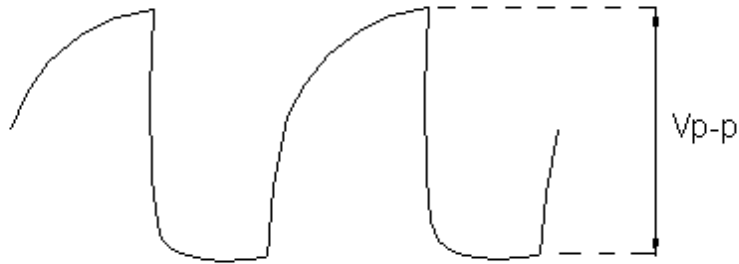


Recommended soldering pattern  
\*To ensure optimal oscillator performance,  
place a by-pass capacitor of 0.1µF as  
close to the part as possible between  
Vdd and GND pads.

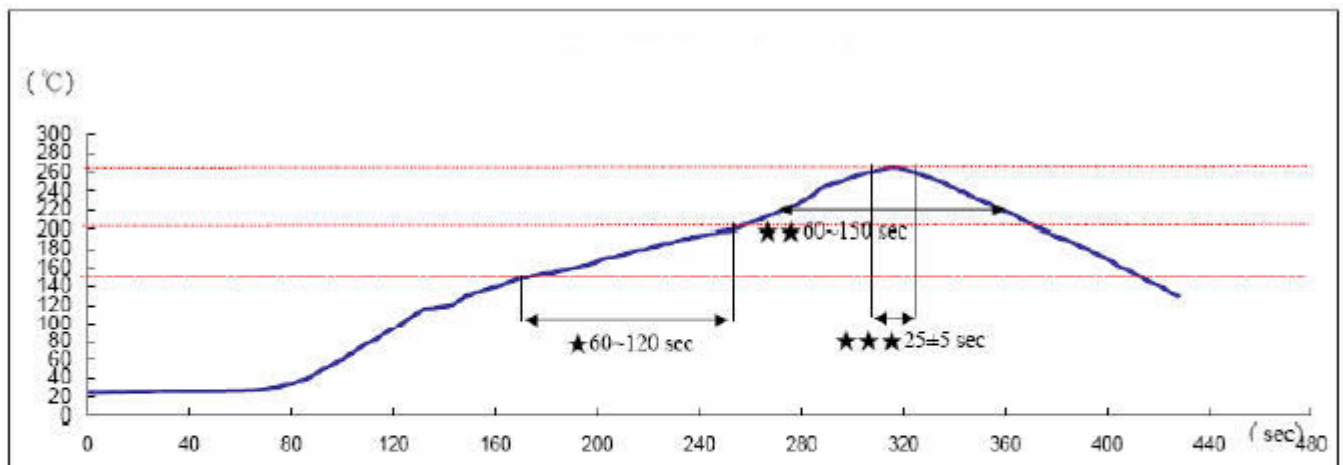
## Test Circuit



## Output Waveput



## Recommended IR Reflow Profile



Reference Standard: JEDEC-STD 020

Test conditions: ★ Pre-heating : 150°C to 200°C, 60~120secs.

★★ Heating : 217°C, 60~150sec.

★★★ Peak temperature : 260±5°C, 25±5sec.