

**P/N: WTL2C22754**

**2.5\*2.0mm TCXO**



Customer	WTL
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	Checked by: Susan He
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# SPECIFICATION

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## 1. ELECTRICAL SPECIFICATIONS

	Parameter	Min.	Typ.	Max.	Unit	Test Condition
1-1	Nominal Frequency		38.400		MHz	
1-2	Nominal Frequency Tolerance	-1.5		+1.5	ppm	Frequency at 25 oC, 1 hour after 2 times reflow.
1-3	Frequency stability over temperature	-0.2		+0.2	ppm	Referenced to the midpoint between minimum and maximum frequency value.
1-4	Control Voltage	1.65 VDC $\pm$ 1V				
1-5	Load Capacitance	10k $\Omega$ /10pF				
1-6	Temperature range	-20		+60	$^{\circ}$ C	The operating temperature range over which the frequency stability is measured
1-7	Frequency slope of perturbations	-0.2		+0.2	ppm/oC	Minimum of 1 frequency reading every 2 oC , over -20 oC to +70 oC
1-8	Load sensitivity	-0.2		+0.2	ppm	$\pm$ 10% load change
1-9	Aging	-1.0		+1.0	ppm	first year at 25 oC

## 2. POWER SUPPLY

	Parameter	Min.	Typ.	Max.	Unit	Test Condition
2-1	Supply voltage	3.15	3.3	3.45	v	
2-2	Current			2.0	mA	At maximum supply voltage

## 3. OSCILLATOR OUTPUT

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

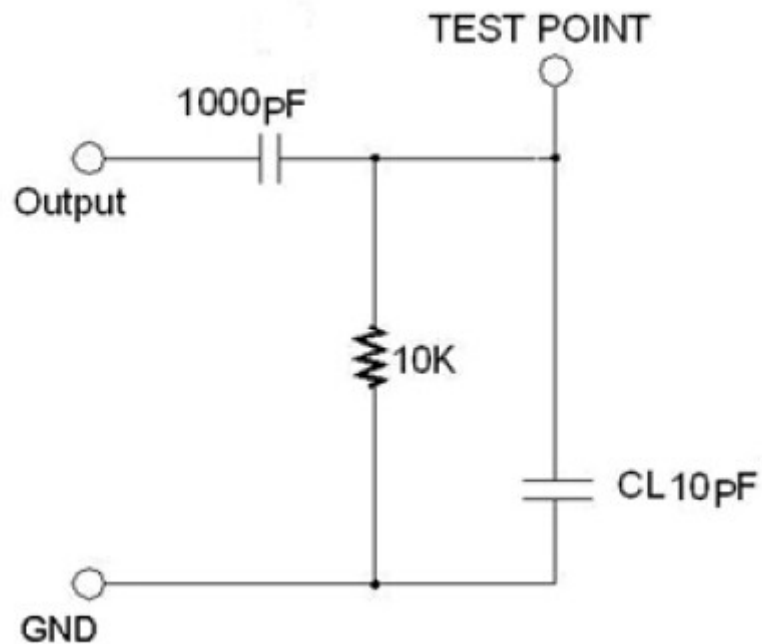
#### 4. PHASE NOISE

	Parameter	Min.	Typ.	Max.	Unit	Test Condition
4-1	10Hz offset			-80	dBc/Hz	
4-2	100Hz offset			-105	dBc/Hz	
4-3	1KHz offset			-128	dBc/Hz	
4-4	10KHz offset			-146	dBc/Hz	
4-5	100KHz offset			-150	dBc/Hz	

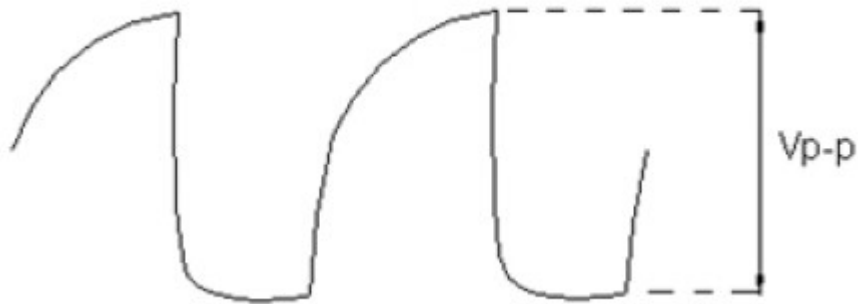
#### 5. ENVIRONMENTAL

	Parameter	Reference Std.	Test Condition
5-1	Vibration T est	MIL-STD-883 2007 Condition A JESD22-B103 Condition 1	10~2000Hz, 1.52mm, 20g, each axis for 4 hrs
5-2	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
5-3	Mechanical Shock	MIL-STD-883 2002 Condition B JESD22-B104 Condition B	1500G, half-sine, 0.5ms, each axis for 3 times.
5-4	Storage temperature		-40 oC to +85 oC

#### 6. TEST CIRCUIT

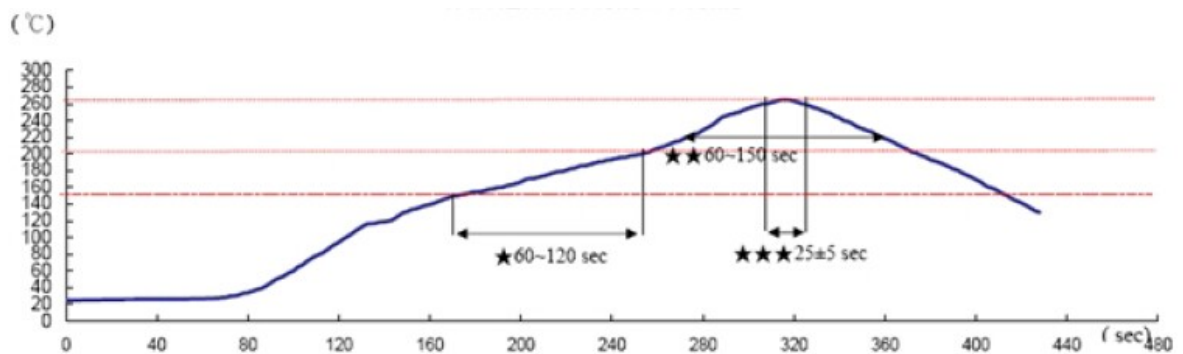


## 7. OUTPUT WAVEFORM



## 8. RECOMMENDED IR REFLOW PROFILE

IR REFLOW PROFILE OF CERAMIC SMD PRODUCTS FOR Pb FREE PROCESS



Reference Standard: JEDEC-STD 020

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

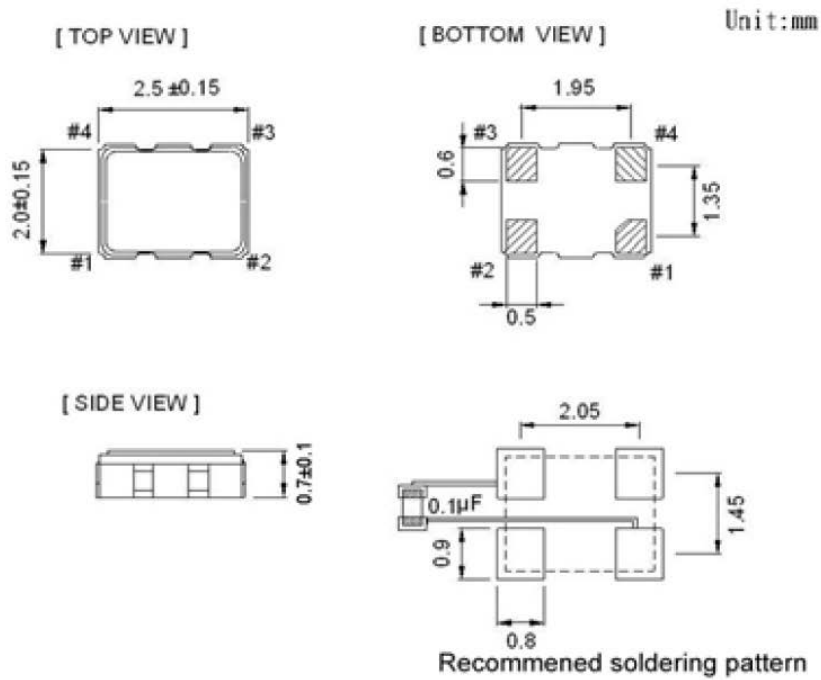
★★Heating : 217°C, 60~150sec.

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

## 9. PRODUCT DIMENSIONS

Unit:mm

### ¾ DIMENSIONS



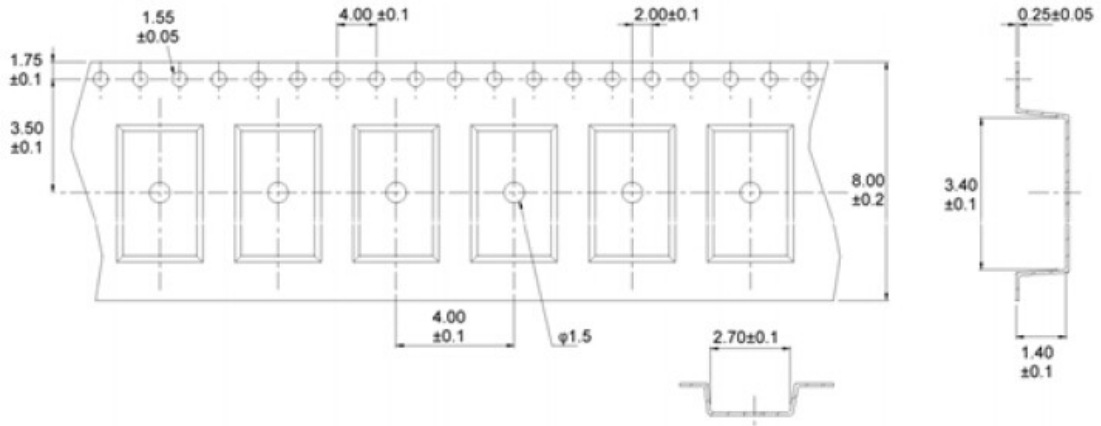
### ¾ PIN FUNCTIONS

Pin	Function
#1	GND / NC
#2	GND
#3	Output
#4	V <sub>DD</sub>

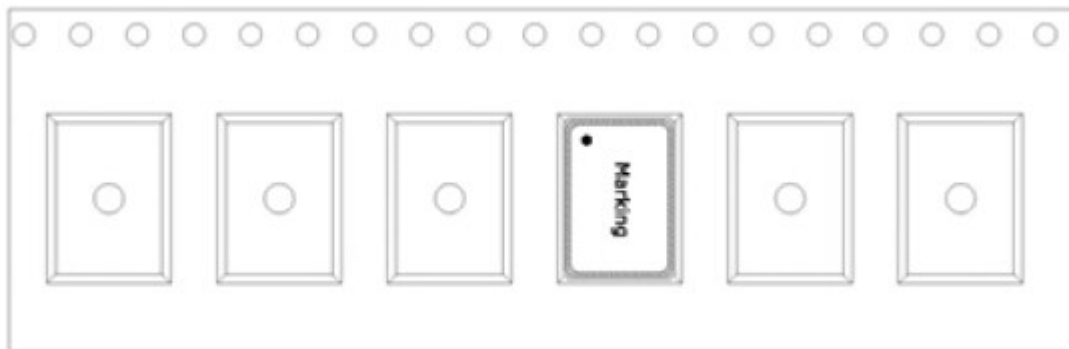
## 10. PACKAGE INFORMATION

TAPE (CARRIER) DIMENSIONS Unit:mm

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**THE DIRECTION OF PACKING**



**REEL DIMENSIONS Unit:mm**

