



ZHEJIANG A-CRYSTAL
ELECTRONIC TECHNOLOGY CO., LTD.



Review Record

Rev.	Rev. Date	Item	Content	Remark
1.0	2025-01-25		Initial released	



1. ELECTRICAL SPECIFICATIONS

1.1 FEATURE

- ① Dimension 9.7 x 7.5mm, miniaturized 4-Pad SMD package
- ② Low Power Consumption
- ③ ± 20 ppb stability over -40 to 85 °C
- ④ Stratum 3 (Overall ± 4.6 ppm including 20 years aging.)

1.2 TYPICAL APPLICATION

- ① Small Cell, Portable Telecommunication Device
- ② Test and Instrumentation
- ③ Synthesizer , Digital switch , Reference Timing Circuit
- ④ Packet Timing Protocol (e.g. IEEE-1588)

1.3 Hold Type: POC9775

No.	Item		Electrical Specification				Remark
			Min.	Type	Max	Units	
1	Nominal Frequency		10.00		50.00	MHz	
2	Wave Form		CMOS Clipped Sine				Please contact us for detail information
3	Clipped Sine		0.8			Vp-p	
4	"1" Level	Rectangular	2.4			V	
	"0" Level			0.4			
5	Duty Cycle		45	50	55	%	@+1.65V
6	Load(Rectangular/Clipped Sine)		15PF/10K Ω //10PF			°C	
7	Spurious				-60	dBc	
8	Frequency Stability Ambient		-20		+20	ppb	-40°C to +85°C, referenced to (Fmax + Fmin)/2 Refer to Table:Freq. Stability vs Temp. Range.
9	Voltage		-5		+5	ppb	$\pm 5\%$ Change
10	Warm-up		-0.1		+0.1	ppm	In 5 minutes @ +25°C, referenced to 1 hour



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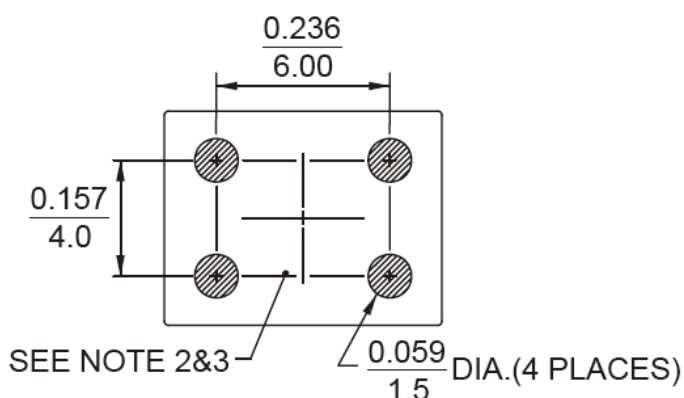
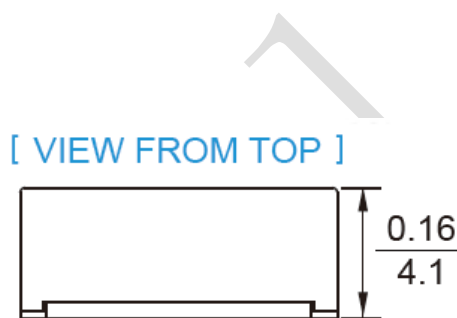
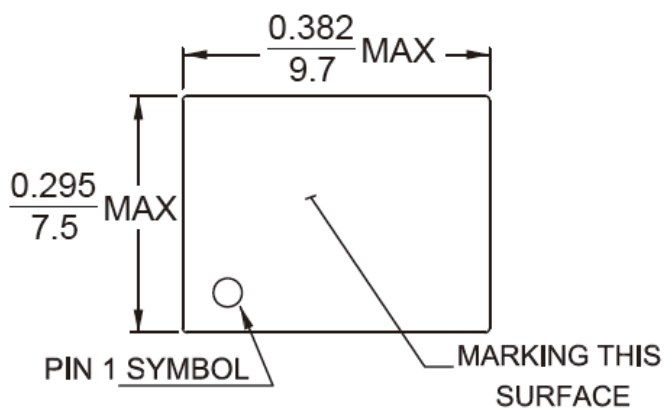


No.	Item		Electrical Specification				Remark
			Min.	Type	Max.	Units	
11	Aging	Dally	-3		+3	ppb	after 30 days continues operation
		yearly	-0.6		+0.6	Ppm	
		10 years	-3		+3	ppm	
12	Electrical Frequency Adjustment						
13	Range				-5.0	ppm	VCO@ 0V
			+5.0				VCO@ 3.3V
14	Control		0	1.65	3.3	V	
15	Slope			Positive			
16	Input impedance		100			K Ω	
17	Input Power Voltage		3.135	3.3	3.465	V	
18	Current				350	mA	@ turn on
19	Steady state			0.3	0.4	W	@ +25°C
20	Phase Noise(10MHz)	10Hz		-110		dBc/Hz	
21		100Hz		-135			
22		1KHz		-149			
23		10KHz		-159			
24		100KHz		-160			
25		1MHz		-161			
26	Package type		9.7*7.5*4.1				

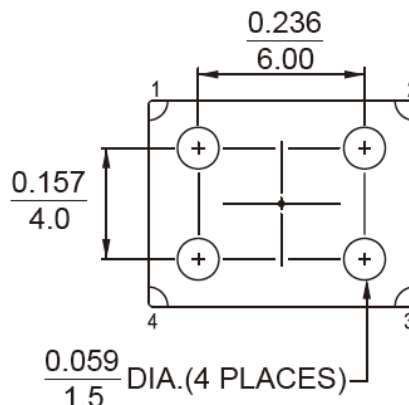


2. PRODUCT SIZE

2.1 Dimension (Unit: mm)



RECOMMENDED SOLDER PAD LAYOUT



Numbers for reference only.
(Not stamped on unit)
(VIEW FROM BOTTOM)

Pin No.	Function
1	VCO INPUT or NOT CONNECTED
2	0 VOLTS AND CASE
3	GND R.F. OUTPUT
4	+VDC

- Notes 1.If the specification does not specify parameters for PIN 1, then PIN 1 must remain unconnected.
 Notes 2.Copper in this area should be kept to a minimum to reduce heat loss from OCXO.
 Notes 3.Bottom side reflow is forbidden unless specified in oscillator specification.
 Notes 4. Aqueous cleaning is FORBIDDEN
 Notes 5. Test condition: A 0.1uF and 10uF X7R decoupling capacitor is required close to the unit