



1. Electrical Parameters

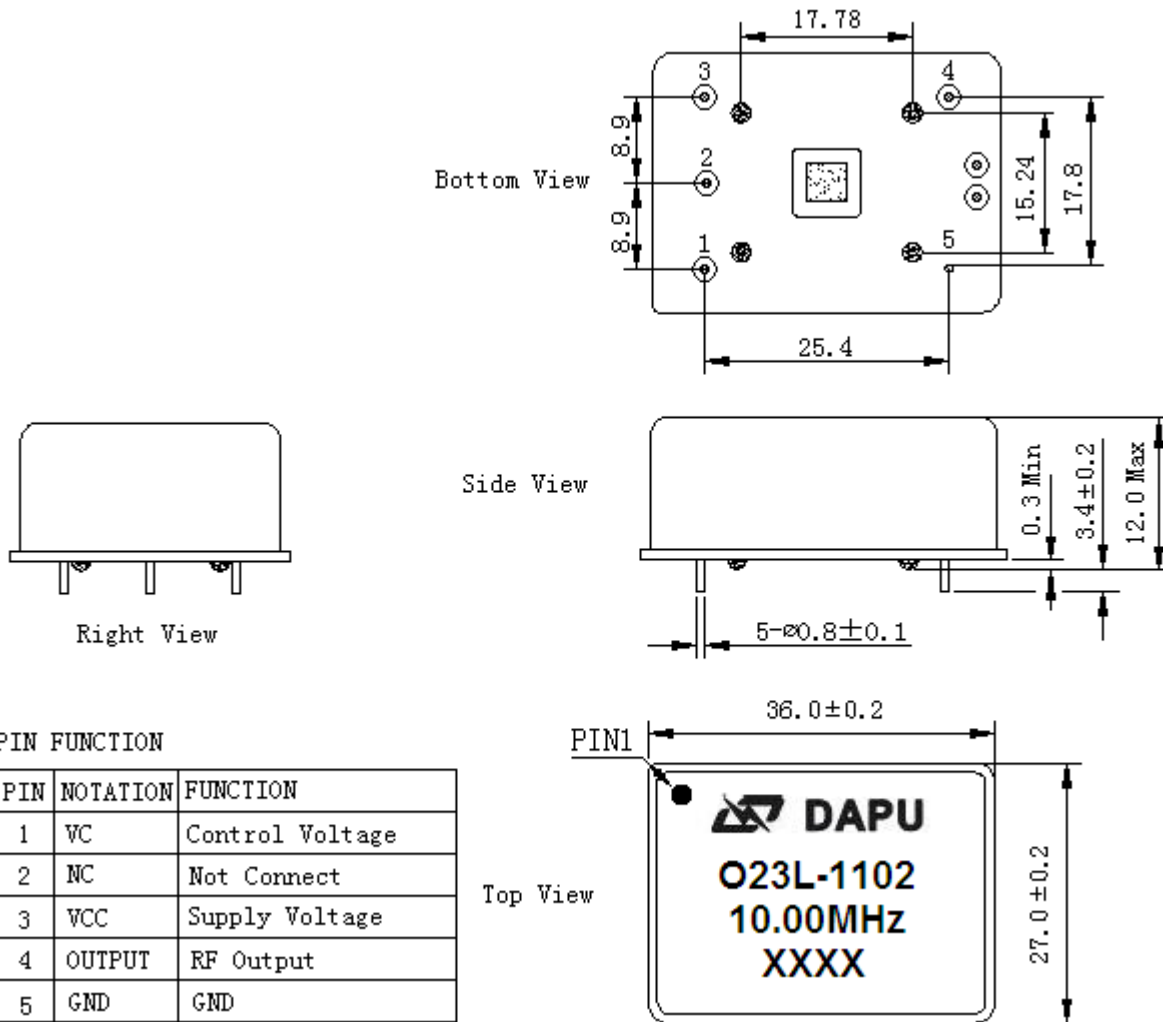
MODEL: O23L-1102-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	LVTTTL				
	Spurious Suppression			-60	dBc	Spurious Suppression
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			6	ns	
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-3		+3	$\times 10^{-9}$	T_A varied from -40°C to 85°C , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, $V_{\text{cc}}=12.0\text{V}$, $V_c=2.5\text{V}$, $O_{\text{load}}=15\text{pF}$, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=12.0\text{V}$, $V_c=2.5\text{V}$, and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-1		+1	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$, V_{cc} varied from 11.4V to 12.6V, $V_c=2.5\text{V}$ and $O_{\text{Load}}=15\text{pF}$.
	Frequency Tolerance vs. Load	-1		+1	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=12.0\text{V}$, $V_c=2.5\text{V}$, and $O_{\text{Load}}=15\text{pF}$.
	Short-Term Stability: Allan Variance			0.015	$\times 10^{-9}$	Temperature stability, no EMI/EMC or other interference, test after power for 1hour ref. to 25°C ; 1s, using PN9000 equipment.
	Aging Tolerance Per Day	-0.5		+0.5	$\times 10^{-9}$	V_{cc} , V_c , T_A constant measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=12.0\text{V}$, $V_c=2.5\text{V}$, and after 30 days of operation.
	Aging Tolerance 1 Year	-0.03		+0.03	$\times 10^{-6}$	
Power Supply	Supply Voltage	11.4	12	12.6	V	
	Steady Consumption			150	mA	@ 25°C
	Warm up current			400	mA	



Voltage Control Characteristics	Frequency Tuning Range	-0.7		-0.5	$\times 10^{-6}$	$V_c=0V$. measurement referenced to $V_c=2.5V$
		-0.1		+0.1	$\times 10^{-6}$	$V_c=2.5V$. measurement referenced to exactly 10.00MHz
		+0.5		+0.7	$\times 10^{-6}$	$V_c=5.0V$. measurement referenced to $V_c=2.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K Ω
Phase Noise	Phase Noise @25°C		-115	-110	dBc/Hz	10Hz
			-135	-130		100Hz
			-148	-143		1KHz
			-152	-147		10KHz
			-155	-150		100KHz
Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage Temperature	-55		+105	°C	
	ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; ANSI/ESDA/JEDEC JS-001-2010.				
	Moisture Sensitivity Level	Not humidity sensitive.				
	Vibration	Test Condition: 10Hz~500Hz (2.20grms Z axis) 10Hz~500Hz (1.62grms X axis) 10Hz~500Hz (2.05grms Y axis) , test 3hour, Power-on test. GJB 150.16A-2009.				
Shock	30g; 11ms; half sine wave (3 times for each 3 directions X, Y, Z), IEC 68-2-27 Test Ea/Severity 50A.					
Full Package Storage	Relative humidity (%)	20%~70%				
	Temperature (°C)	-10~35°C				



2. Mechanical Structure (mm)



Note1: Tolerance ±0.2mm without mark

Note2: Marking

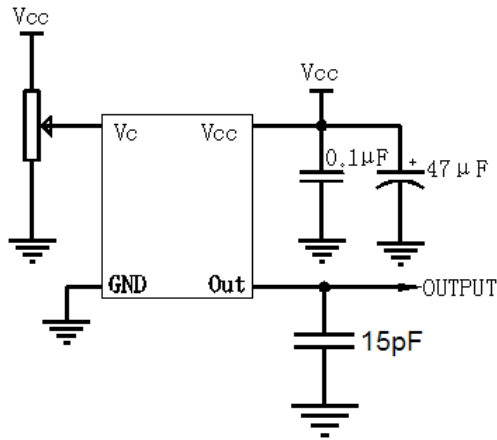
- 1) Line 1 is DAPU's logo
- 2) Line 2-3 is product model
- 3) Line 4 is manufacture date code:
The first two xx representative: week
After two xx representative: year

Note3: Referential Weight 17.0g

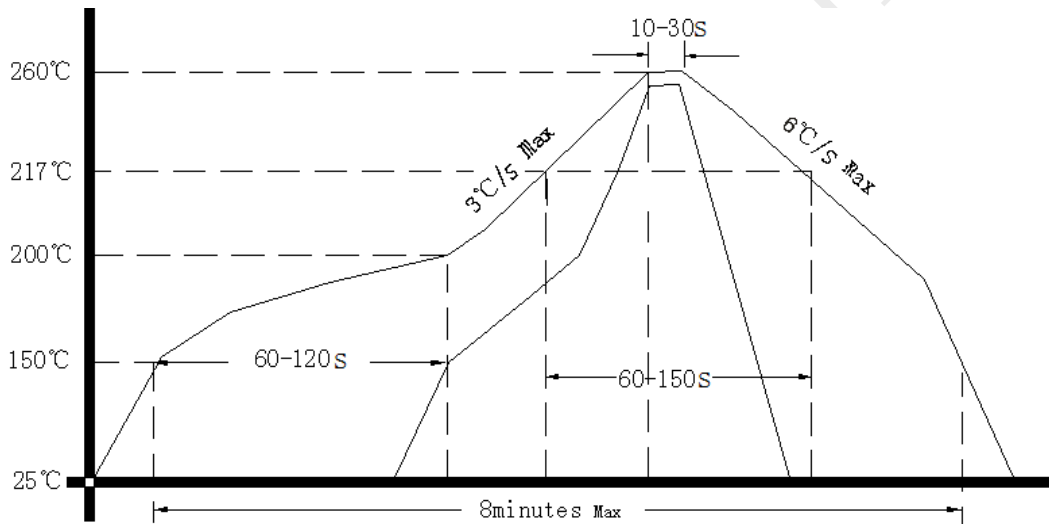
Note4: NC is not connect



4. Test Circuit



5. Reflow Soldering Curve (RoHS)



6. Package (mm)

