Travelling Merchant: A011

DATASHEET

Standard: **O23L-1102-10.00MHz**

P/N:

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Amway.wei	Carry.Wang	James.Liu	
Date: 2016.05.30			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2014.01.03
1.1	"Full Package Storage" added "Operating Temperature Range" , "Vibration" and "Mechanical Structure" changed	Amway	2015.01.15
1.2	"Mechanical Structure" changed	Amway	2015.01.23
1.3	"Mechanical Structure" changed	Amway	2015.02.02
1.4	"Operable Temperature" changed	Amway	2016.05.30

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1. Electrical Parameters

MODEL： O23L-1102-10.00MHz

Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		10.00		MHz	
	Output Waveform		LVTTL			
	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℃ to 80℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=12.0V, V_c=2.5V, O_{load}=15pF, temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=12.0V, V_c=2.5V, 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℃, V_{cc} varied from 11.4V to 12.6V, V_c =2.5V and O_{Load}=15pF.
	Frequency Tolerance vs. Load	-1		+1	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with T_A=25℃, V_{cc}=12.0V, V_c=2.5V, and O_{Load}=15pF.
	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℃; 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℃, V_{cc}= 12.0V, V_c=2.5V, 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℃
	Warm up current			400	mA	

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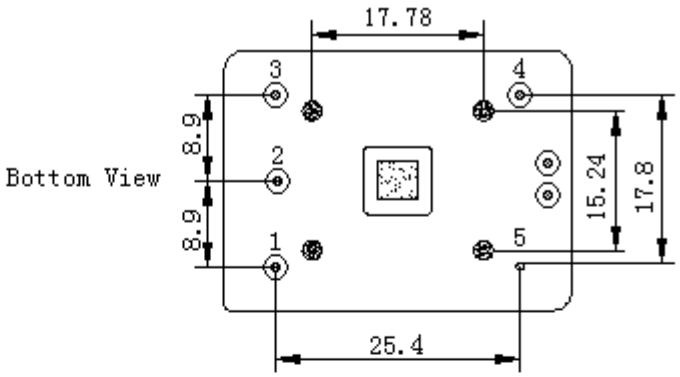
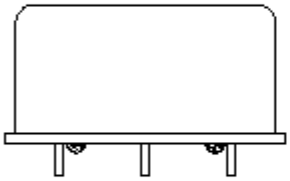
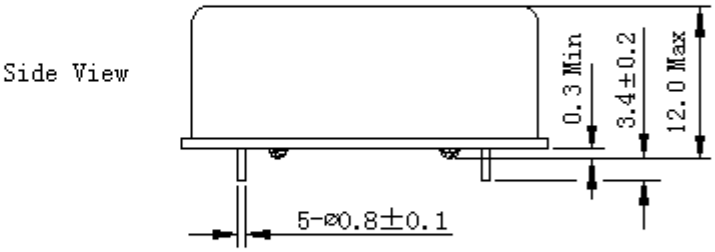
Voltage Control Characteristics	Frequency Tuning Range	-0.7		-0.5	$\times 10^{-6}$	V_c=0V. measurement referenced to V_c=2.5V
		-0.1		+0.1	$\times 10^{-6}$	V_c=2.5V. measurement referenced to exactly 10.00MHz
		+0.5		+0.7	$\times 10^{-6}$	V_c=5.0V. measurement referenced to V_c=2.5V
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Phase Noise	Phase Noise @25℃		-115	-110	dBc/Hz	10Hz
			-135	-130		100Hz
			-148	-143		1KHz
			-152	-147		10KHz
			-155	-150		100KHz
Environmental Conditions	Operable Temperature	-40		+80	℃	
	Storage Temperature	-55		+105	℃	
	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 (℃)	-10~35℃				

2. Mechanical Structure (mm)

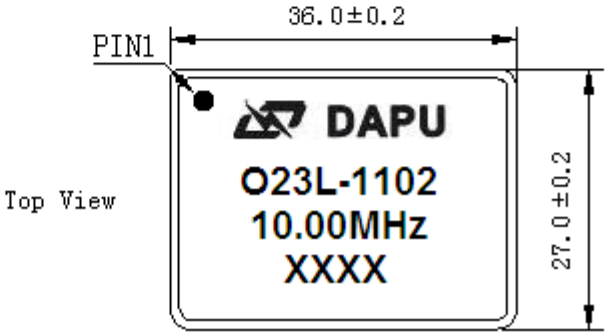






PIN FUNCTION

PIN	NOTATION	FUNCTION
1	VC	Control Voltage
2	NC	Not Connect
3	VCC	Supply Voltage
4	OUTPUT	RF Output
5	GND	GND



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:

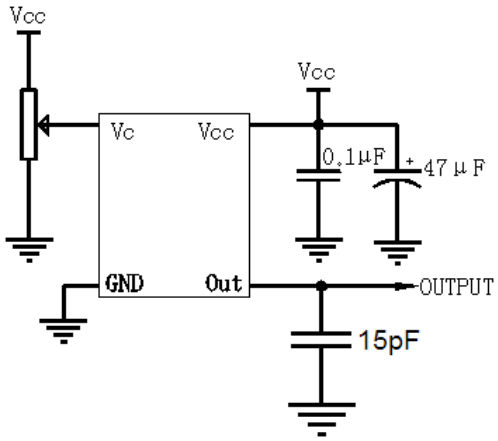
The first two xx representative: week

After two xx representative: year

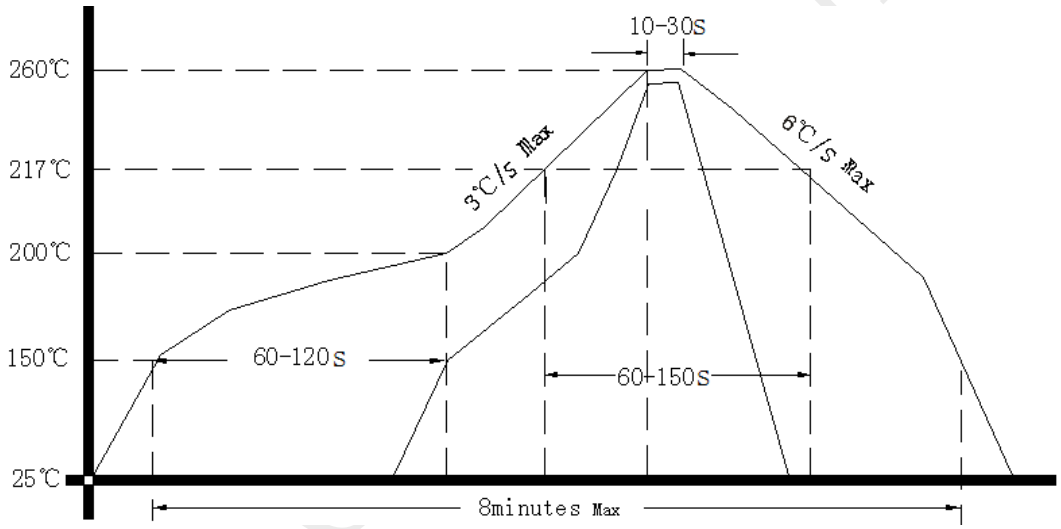
Note3: Referential Weight 17.0g

Note4: NC is not connect

4. Test Circuit



5. Reflow Soldering Curve (RoHS)



6. Package（mm）