Travelling Merchant: A012

DATASHEET

Standard: **O11F-1201-20.00MHz**

P/N:

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Amway.wei	Tony · Wang	James.Liu	
Date: 2019.03.12			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2019.03.12

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1. Electrical Parameters

MODEL： O11F-1201-20.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		20.00		MHz	
	Output Waveform		LVCMOS			
	Output Low Voltage			0.4	V	V_{cc}=3.3V, O_{load}=15pF
	Output High Voltage	2.4			V	V_{cc}=3.3V, O_{load}=15pF
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			10	ns	
	Spurious			-60	dBc	
	Load		15		pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.05		+0.05	$\times 10^{-6}$	T_A varied from -40℃ to 85℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=3.3V, O_{load}=15pF, temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-0.2		+0.2	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V, and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-10		+10	$\times 10^{-9}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 3.135V to 3.465V, and O_{Load}=15pF.
	Frequency Tolerance vs. Load	-10		+10	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V, and O_{Load}=15pF.
	Short-Term Stability Allan Variance			0.1	$\times 10^{-9}$	1s
				0.1	$\times 10^{-9}$	10s
				0.1	$\times 10^{-9}$	100s
				0.3	$\times 10^{-9}$	1000s
				0.6	$\times 10^{-9}$	10000s
	Aging Tolerance Per Day	-5.0		+5.0	$\times 10^{-9}$	V_{cc},T_A constant measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V, and after 30 days of operation.
	Aging Tolerance 1 Year	-0.5		+0.5	$\times 10^{-6}$	
	Aging Tolerance 10 Year	-3.0		+3.0	$\times 10^{-6}$	

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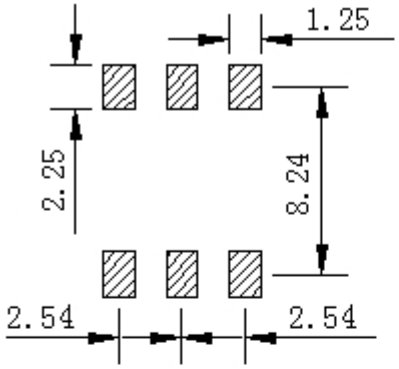
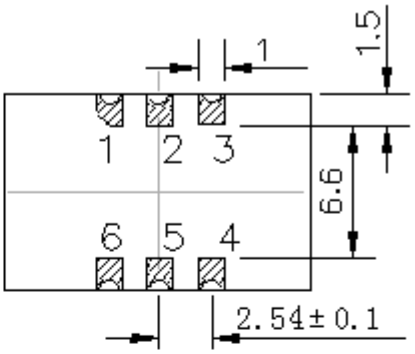
Power Supply	Supply Voltage	3.135	3.3	3.465	V	
	Steady Consumption			200	mA	@25℃
	Warm up current			600	mA	
	Warm-Up Time			5	minutes	@25 ℃ within ±0.05 × 10^{-6} of final frequency with reference after 1 hours on.
				-105	dBc/Hz	10Hz
				-130		100Hz
				-145		1KHz
				-150		10KHz
Environmental Conditions	Operable Temperature	-40		+85	℃	
	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	Level 3.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz～500Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z), IEC 68-2-06 Test Fc.				
	Shock	50g; 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℃				

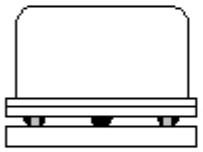
2. Mechanical Structure (mm)

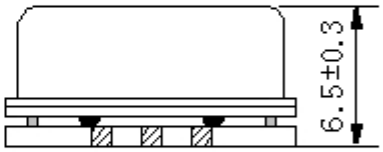


Solder Pad layout



Bottom view


Right view



Side view

PIN FUNCTION

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

Top view

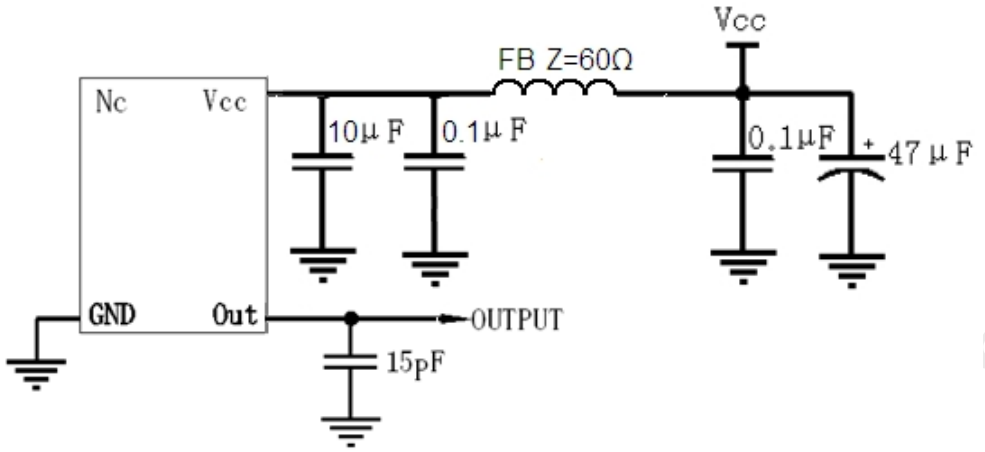
Note1: Tolerance ±0.2mm without mark

Note2: The first two xx representative: week
After two xx representative: year

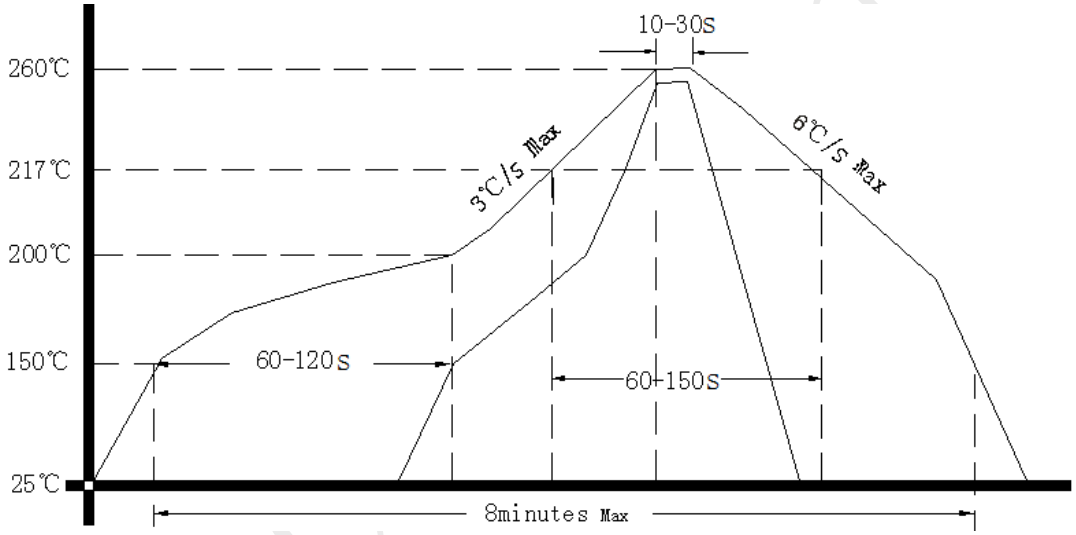
Note3: Referential weight 2.6g

Note4: NC is not connect

3. Test Circuit



4. Reflow Soldering Curve (RoHS)



Note: passing through reflow upside down is not supported

5. Package: Tape & Reel (mm)