

Travelling Merchant: _____

DATASHEET

Standard: **O11F-R319-38.88MHz-AG213**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.03.26			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2024.03.26



1. Electrical Parameters

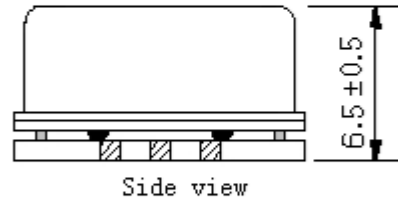
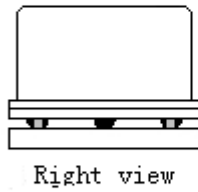
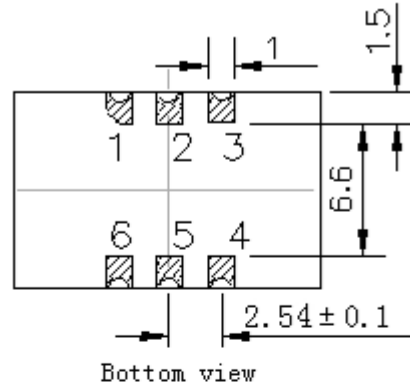
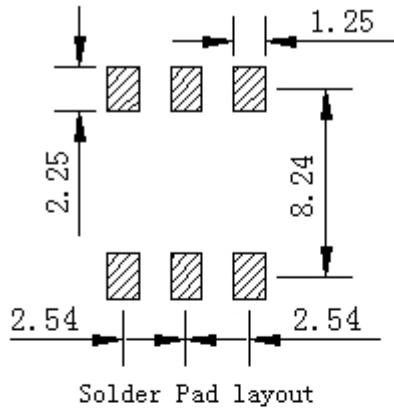
MODEL: O11F-R319-38.88MHz-AG213						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	38.88			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.15	V	$V_{cc}=3.3V, O_{load}=15pF$
	Output High Voltage	1.65		1.95	V	$V_{cc}=3.3V, O_{load}=15pF$
	Duty Cycle	45		55	%	@50%
	Rise / Fall Time (10%~90%)			2	ns	
	Load	13.5		16.5	pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-5		+5	$\times 10^{-9}$	T_A varied from $-40^{\circ}C$ to $95^{\circ}C$, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=3.3V, O_{load}=15pF$, temperature rise speed less than $2^{\circ}C$ per minute.
	Initial Frequency Tolerance	-0.2		+0.2	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=3.3V$, at the shipment.
	Frequency Tolerance vs. Supply Voltage	-2		+2	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}C, V_{cc}$ varied from 3.267 V to 3.333V, and $O_{Load}=15pF$.
	Frequency Tolerance vs. Load	-2		+2	$\times 10^{-9}$	10% load change measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=3.3V$, and $O_{Load}=15pF$.
	Reflow Shift	-0.2		+0.2	$\times 10^{-6}$	$T_A=25^{\circ}C$, After 1hour
	Frequency Slope	-0.1		+0.1	$\times 10^{-9}/^{\circ}C$	Temperature ramp $\leq 1^{\circ}C/min$, in still air
	Acceleration Sensitivity		0.9		$\times 10^{-9}/g$	Gamma vector of all three axes from 30 Hz to 1500 Hz.
	Short-Term Stability: Allan Variance			0.1	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^{\circ}C$; 1s.
	Aging Tolerance Per Day	-3		+3	$\times 10^{-9}$	V_{cc}, T_A constant measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=3.3V$,
	Aging Tolerance 1 Year	-0.3		+0.3	$\times 10^{-6}$	and after 30 days of operation.



Power Supply	Supply Voltage	3.135	3.3	3.465	V	
	Steady Consumption			180	mA	@25°C
	Warm up current			800	mA	
	Warm-Up Time			5	minutes	@25°C within $\pm 0.1 \times 10^{-6}$ of final frequency with reference after 1 hours on.
Phase Noise	Phase Noise		-70	-65	dBc/Hz	1Hz
			-102	-97		10Hz
			-132	-127		100Hz
			-150	-145		1KHz
			-155	-150		10KHz
			-157	-150		100KHz
			-159	-150		1MHz
Environmental Conditions	Operable Temperature	-40		+95	°C	
	Storage Temperature	-55		+125	°C	
	ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; JEDEC JESD22-A115C.				
	Moisture Sensitivity Level	Level 2.				
	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 (°C)	-10~35°C				

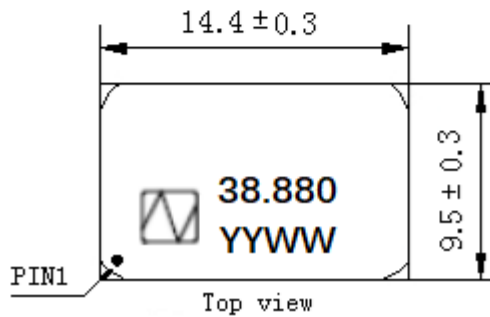


2. Mechanical Structure (mm)



PIN FUNCTION

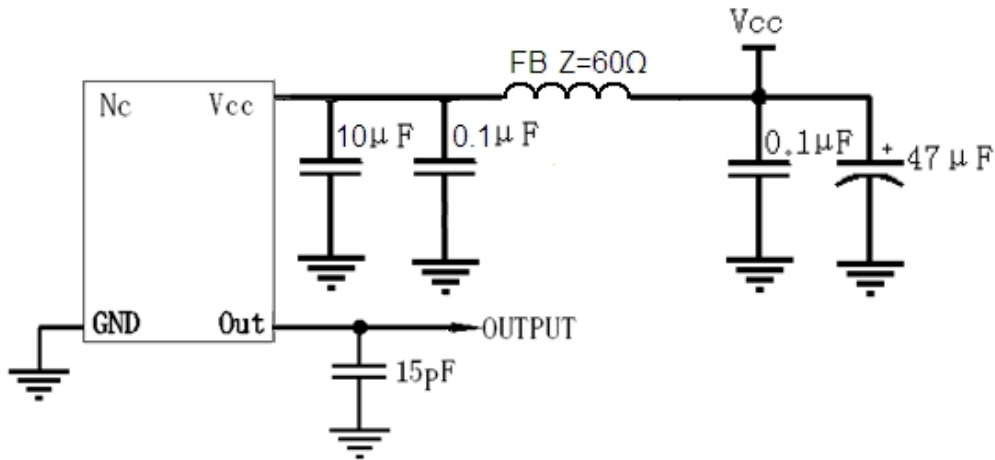
PIN	FUNCTION
1	NC
2,5	NC
3	GND
4	OUTPUT
6	VCC



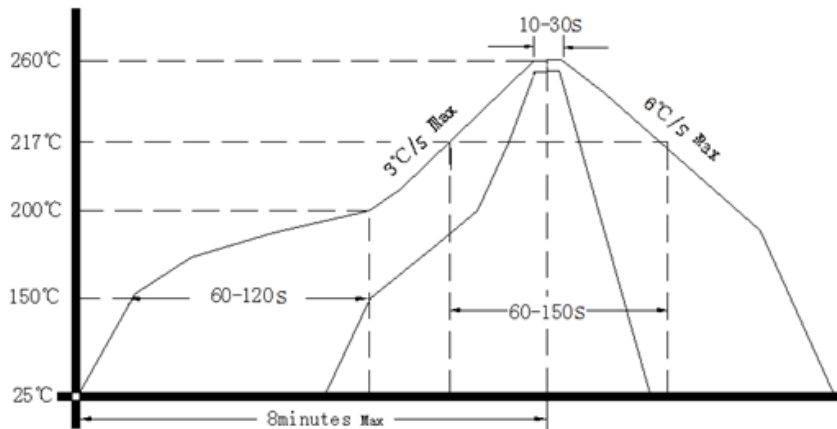
- Note1:** Tolerance $\pm 0.2\text{mm}$ without mark
- Note2:** Referential weight 2.2g
- Note3:** NC is not connect
- Note4:** The first two YY representative: year
After two WW representative: week



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



Note: Passing through reflow upside down is not supported

5. Package: Tape & Reel (mm)

