

Travelling Merchant: _____

DATASHEET

Standard: O23B-G126-10.00MHz-X337

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.12.06			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2024.12.06



1. Electrical Parameters

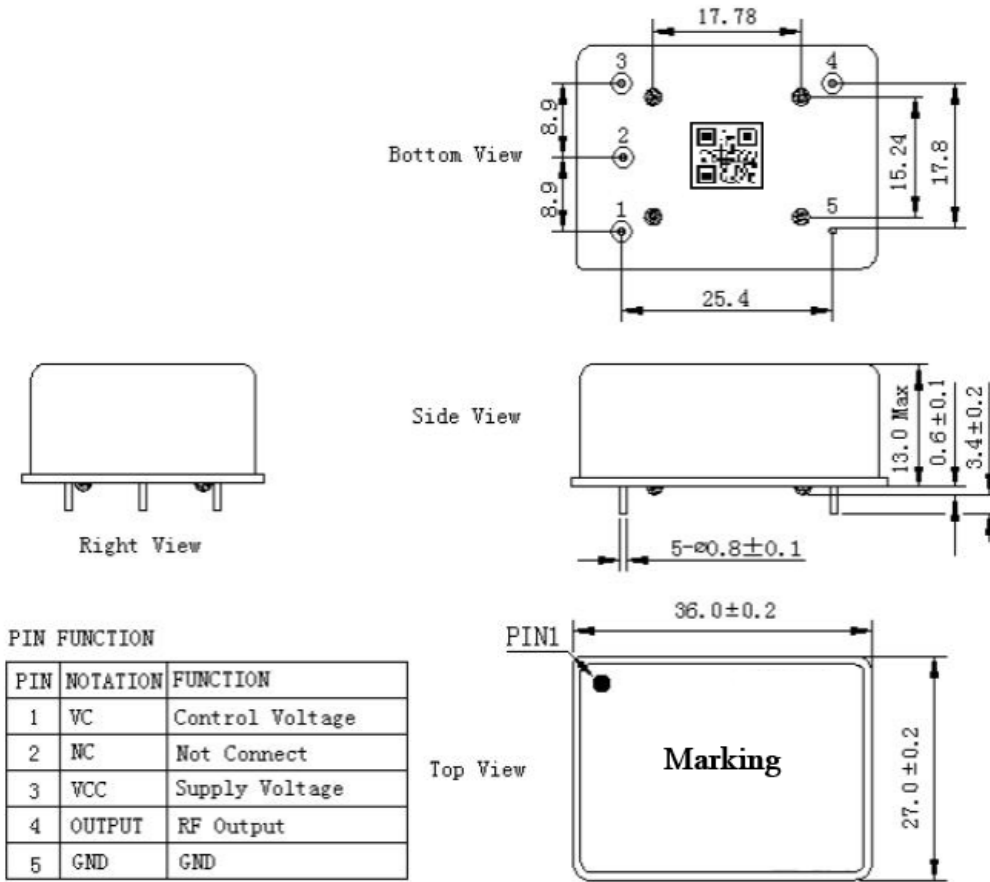
MODEL: O23B-G126-10.00MHZ-X337						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.5	V	$V_{cc}=5.0V, O_{load}=15pF$
	Output High Voltage	4.5			V	$V_{cc}=5.0V, O_{load}=15pF$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			5	ns	
	Spurious			-60	dBC	
	Load	14.25	15	15.75	pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-1		+1	$\times 10^{-9}$	T_A varied from $-40^{\circ}C$ to $85^{\circ}C$, measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V, V_c=2.5V, O_{load}=15pF$, temperature variable speed less than $2^{\circ}C$ per minute.
	Initial Frequency Tolerance	-0.2		+0.2	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V, V_c=2.5V$, and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.5		+0.5	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}C, V_{cc}$ varied from 4.75V to 5.25V, $V_c=2.5V$ and $O_{Load}=15pF$.
	Frequency Tolerance vs. Load	-0.5		+0.5	$\times 10^{-9}$	10% load change measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V, V_c=2.5V$, 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 $25^{\circ}C$; 1s.
	Aging Tolerance Per Day	-0.5		+0.5	$\times 10^{-9}$	V_{cc}, V_c, T_A constant measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V, V_c=2.5V$, and after 30 days of operation.
	Aging Tolerance 1 Year	-50		+50	$\times 10^{-9}$	



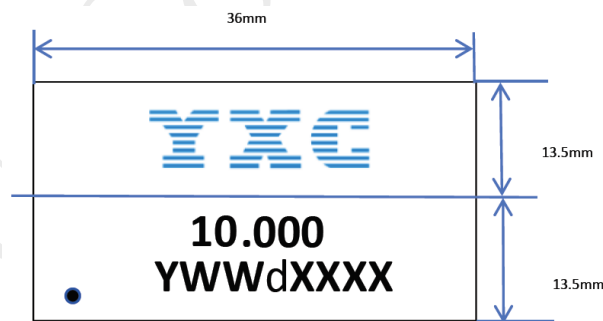
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Steady Consumption			240	mA	@25°C
	Warm up current			750	mA	
Voltage Control Characteristics	Frequency Tuning Range	-0.8		-0.4	$\times 10^{-6}$	$V_c=0V$. measurement referenced to $V_c=2.5V$
		-0.2		+0.2	$\times 10^{-6}$	$V_c=2.5V$. measurement referenced to exactly 10.00MHz
		+0.4		+0.8	$\times 10^{-6}$	$V_c=5.0V$. measurement referenced to $V_c=2.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			K Ω	
Phase Noise	Phase Noise		-90	-80	dBc/Hz	1Hz
			-130	-120		10Hz
			-150	-140		100Hz
			-150	-145		1KHz
			-155	-150		10KHz
Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage Temperature	-40		+105	°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	Not humidity sensitive.				
	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.					



2. Mechanical Structure (mm)



Marking:



Note1: Tolerance ± 0.2mm without mark

Note2: Marking:

YXC=>Costumer logo

10.000=>Frequency (MHz)

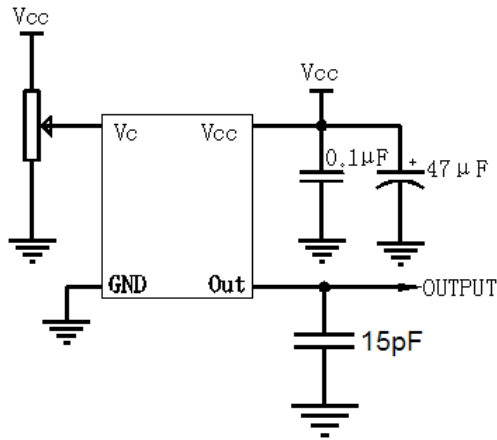
Y=> year, WW=> Week, d=> Supplier, XXXX=> Serial number

The font height is 4mm, with a vertical spacing of 1mm. The top of the first line of text is 2mm away from the centerline. The bottom of the second line of text is 2.5mm away from the bottom edge. The overall printing is located in the middle position, and the PIN point marking in the lower left corner is 0.5mm diameter.

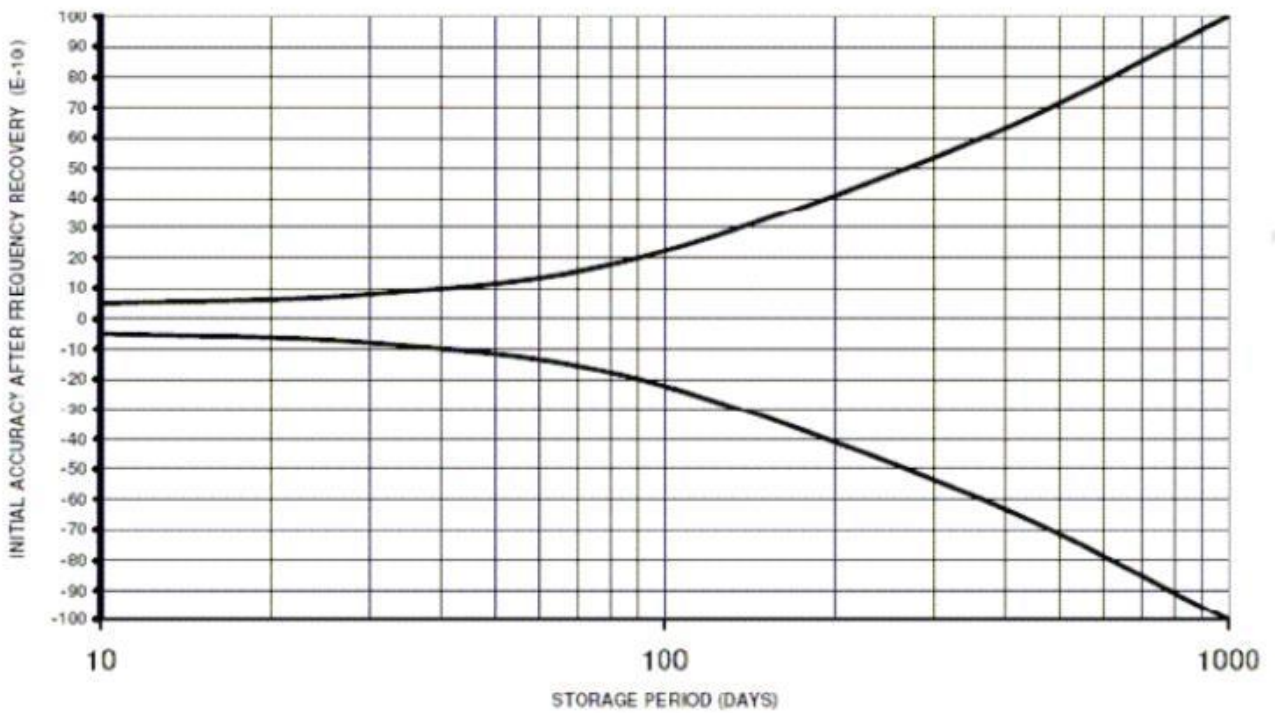
Note3: Referential Weight 20.7g



3. Test Circuit



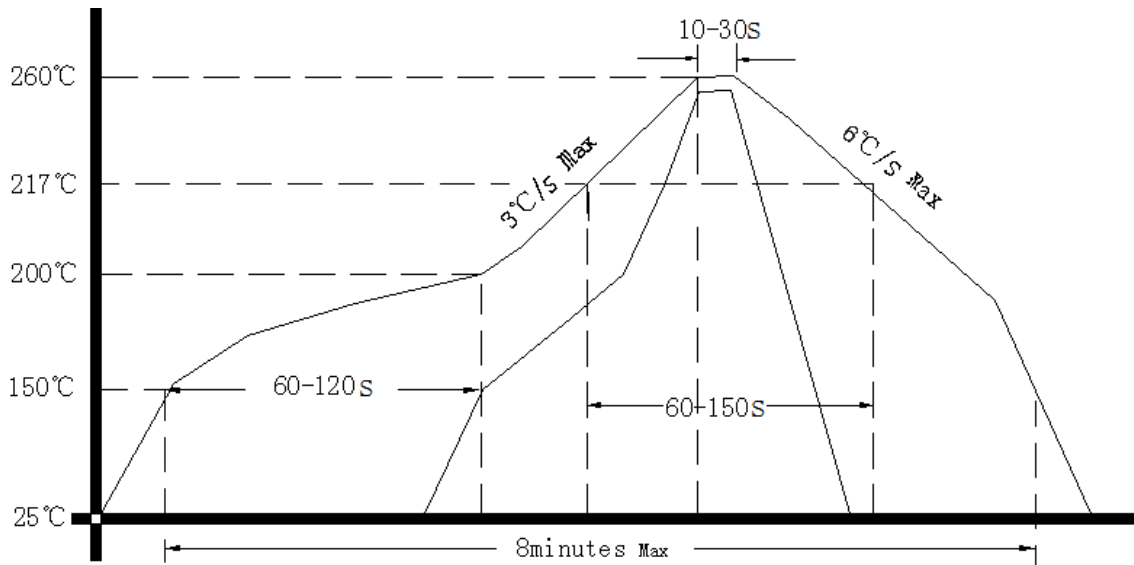
4. Initial accuracy at IQC after frequency recovery



Note: Initial accuracy with time of storage and retrace measured at 25 °C after frequency recovery time



5. Reflow Soldering Curve(RoHS)



6. Package (mm)

