

Travelling Merchant: _____

DATASHEET

Standard: **O23B-P126-10.00MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2018.09.18			

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1. Electrical Parameters

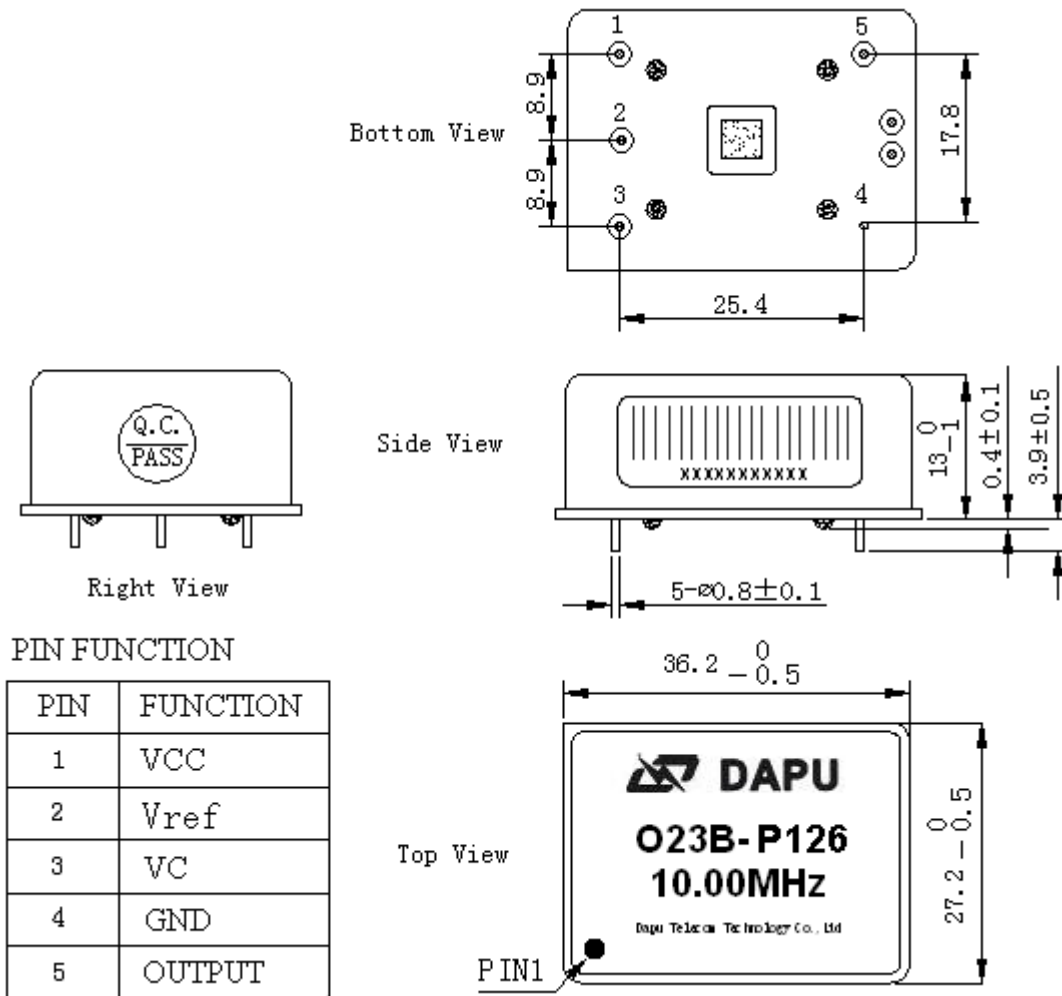
MODEL: O23B-P126-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.5	V	$V_{cc}=5.0V, O_{load}=15pF$
	Output High Voltage	4.5			V	$V_{cc}=5.0V, O_{load}=15pF$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			6	ns	
	Spurious			-60	dBc	
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-3		+3	$\times 10^{-9}$	T_A varied from $-40^{\circ}C$ to $80^{\circ}C$, 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	-0.1		+0.1	$\times 10^{-6}$	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	-1		+1	$\times 10^{-9}$	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	-1		+1	$\times 10^{-9}$	5% 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 , 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 $T_A= 25^{\circ}C, V_{cc}= 5.0V, V_c =2.5V$, and after 30 days of operation.
	Aging Tolerance 1 Year	-0.03		+0.03	$\times 10^{-6}$	
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Steady Consumption			400	mA	@ $25^{\circ}C$
	Warm up current			1000	mA	



Voltage Control Characteristics	Frequency Tuning Range	-0.8		-0.4	$\times 10^{-6}$	$V_c = 0$ V. measurement referenced to $V_c = 2.5$ V
		-0.1		+0.1	$\times 10^{-6}$	$V_c = 2.5$ V. measurement referenced to exactly 10.00 MHz
		+0.4		+0.8	$\times 10^{-6}$	$V_c = 5.0$ V. measurement referenced to $V_c = 2.5$ V
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K Ω
Phase Noise	Phase Noise		-115	-110	dBc/Hz	10 Hz
			-135	-130		100 Hz
			-148	-143		1 KHz
			-152	-147		10 KHz
			-155	-150		100 KHz
Environmental Conditions	Operable Temperature	-40		+85	$^{\circ}$ C	
	Storage Temperature	-55		+105	$^{\circ}$ C	
	ESD Level	Human Body Model, class 2: 2000 V to 4000 V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200 V to 400 V; ANSI/ESDA/JEDEC JS-001-2010.				
	Moisture Sensitivity Level	Not humidity sensitive.				
	Vibration	Test Condition: 0.75 mm; acceleration: 10 g; 10 Hz ~ 500 Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X, Y, Z), IEC 68-2-06 Test Fc.				
Shock	50 g; 11 ms; half sine wave (3 times for each 3 directions X, Y, Z), IEC 68-2-27 Test Ea/Severity 50A.					



2. Mechanical Structure (mm)



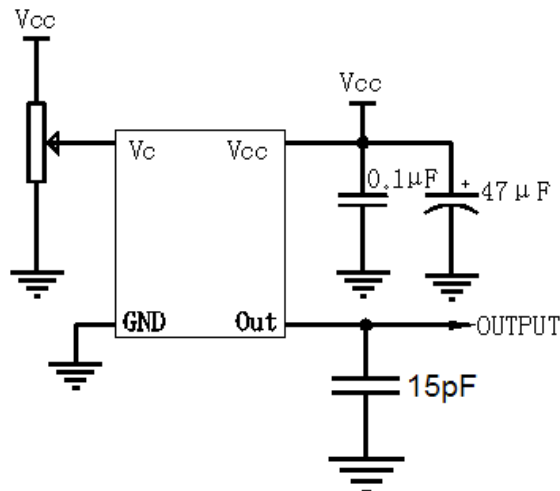
PIN FUNCTION

PIN	FUNCTION
1	VCC
2	Vref
3	VC
4	GND
5	OUTPUT

Note1: Tolerance ± 0.2mm without mark

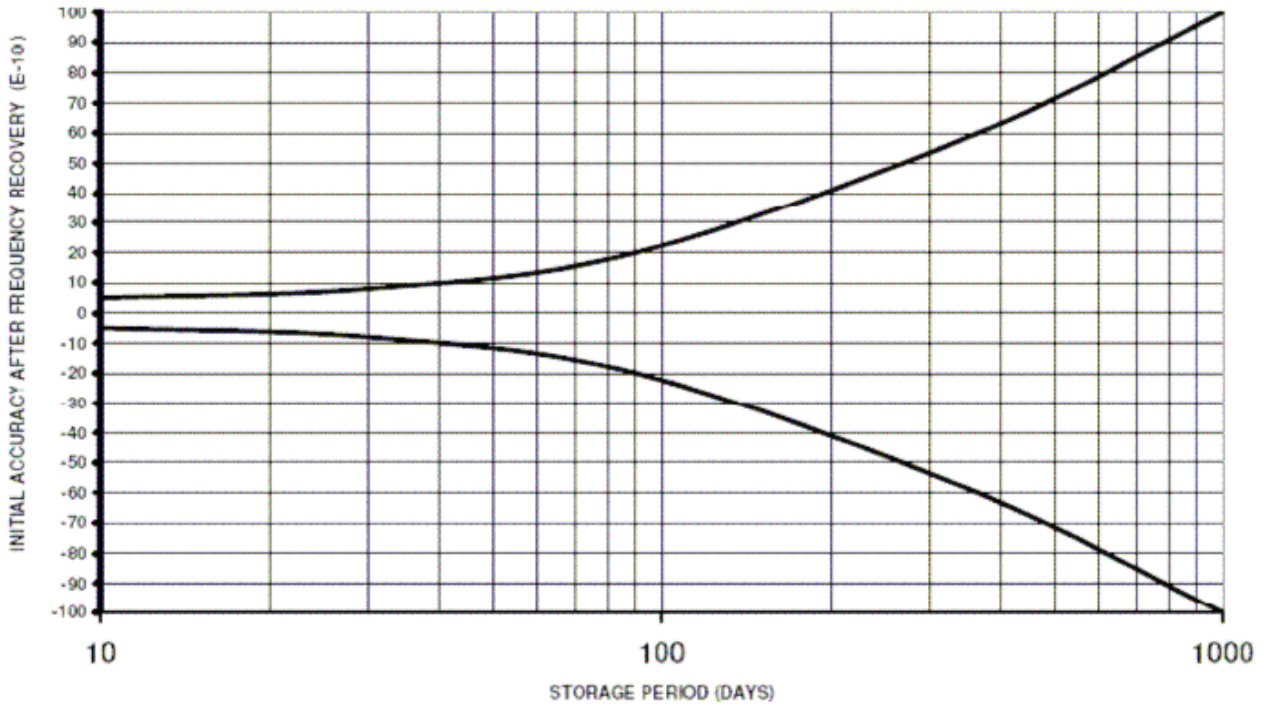
Note2: Referential Weight 21g

3. Test Circuit



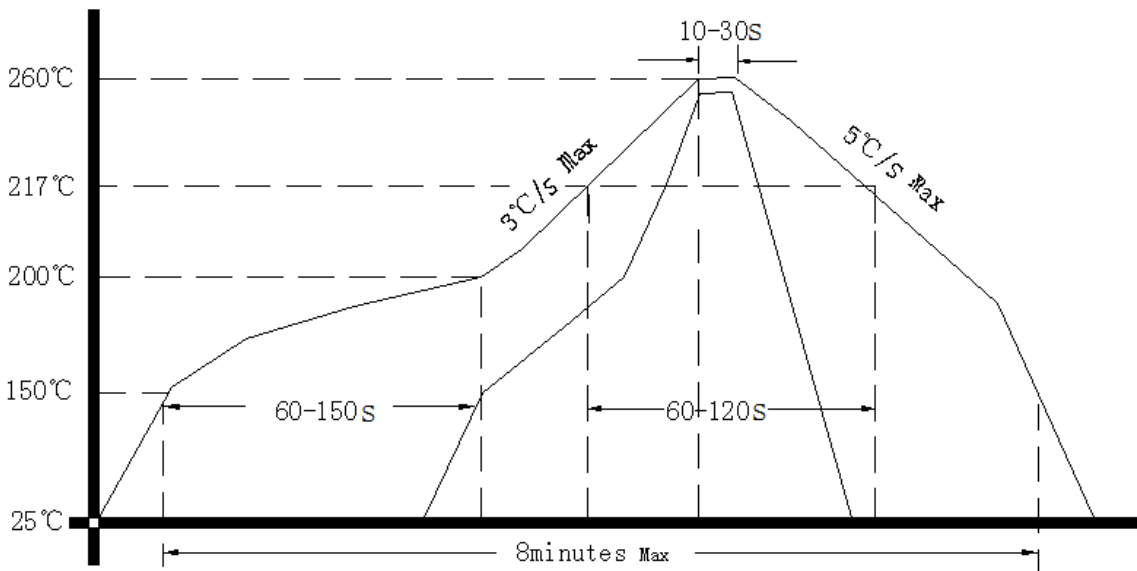


4. Initial accuracy at IQC after frequency recovery



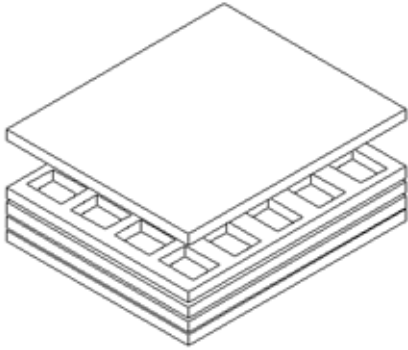
Note: Initial accuracy with time of storage and retrace measured at 25 °C after frequency recovery time

5. Reflow Soldering Curve (RoHS)

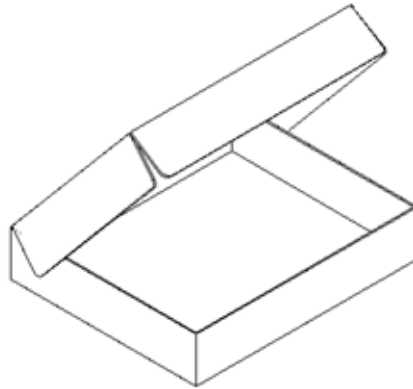




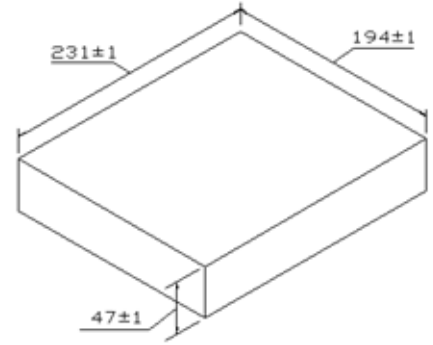
5. Package (mm)



Buffer material



Cardboard
Max 20pcs. circulator



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