

Travelling Merchant: _____

DATASHEET

Standard: **O23B-A325-10.00MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2023.08.12			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2023.08.12



1. Electrical Parameters

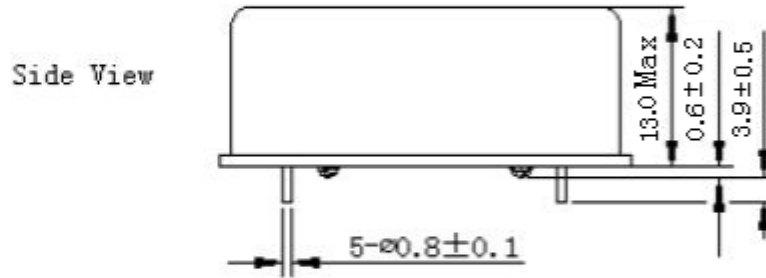
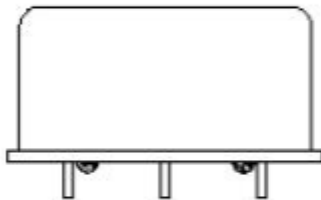
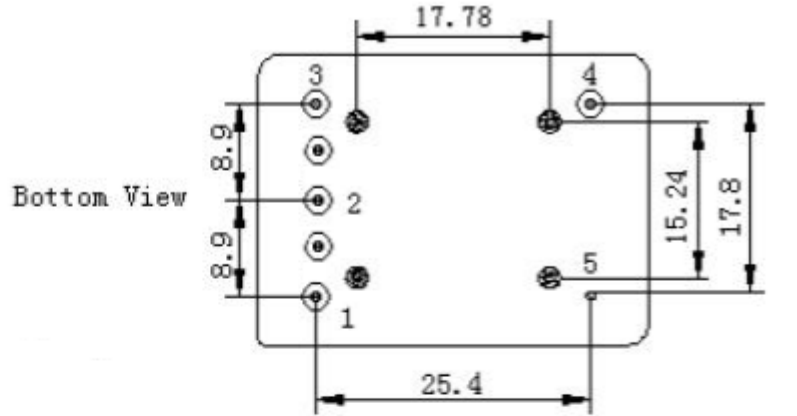
MODEL: O23B-A325-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.5	V	$V_{cc}=5.0V, O_{load}=15pF$
	Output High Voltage	2.4			V	$V_{cc}=5.0V, O_{load}=15pF$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			5	ns	
	Spurious Suppression			-70	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 0°C to 50°C, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=5.0V, O_{load}=15pF$, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V$, and after factory calibrated
	Frequency Tolerance vs. Supply Voltage	-0.2		+0.2	$\times 10^{-9}$	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	-0.2		+0.2	$\times 10^{-9}$	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			2	$\times 10^{-12}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C; @ 1s to 1000s.
	Aging Tolerance Per Day	-0.3		+0.3	$\times 10^{-9}$	V_{cc}, V_c, T_A constant measurement referenced to frequency observed with $T_A=25^\circ C,$
	Aging Tolerance 1 Year	-0.03		+0.03	$\times 10^{-6}$	$V_{cc}= 5.0V, V_c=2.5V$, and after 30 days of operation.



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			-0.5	$\times 10^{-6}$	$V_c=0V$. 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			$\times 10^{-6}$	$V_c=5.0V$. measurement referenced to $V_c=2.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			K Ω	
Phase Noise	Phase Noise			-120	dBc/Hz	10Hz
				-140		100Hz
				-150		1KHz
				-155		10KHz
Environmental Conditions	Operable Temperature	0		+50	°C	
	Storage Temperature	-55		+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.					
Full Package Storage	Relative Humidity (%)	20%-70%				
	Temperature(°C)	-30~35°C				

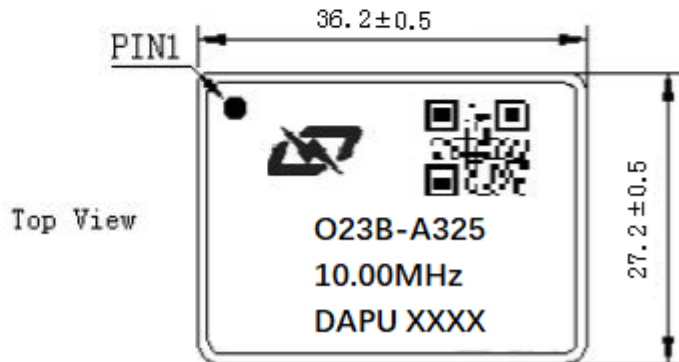


2. Mechanical Structure (mm)



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 ± 0.2 mm without mark

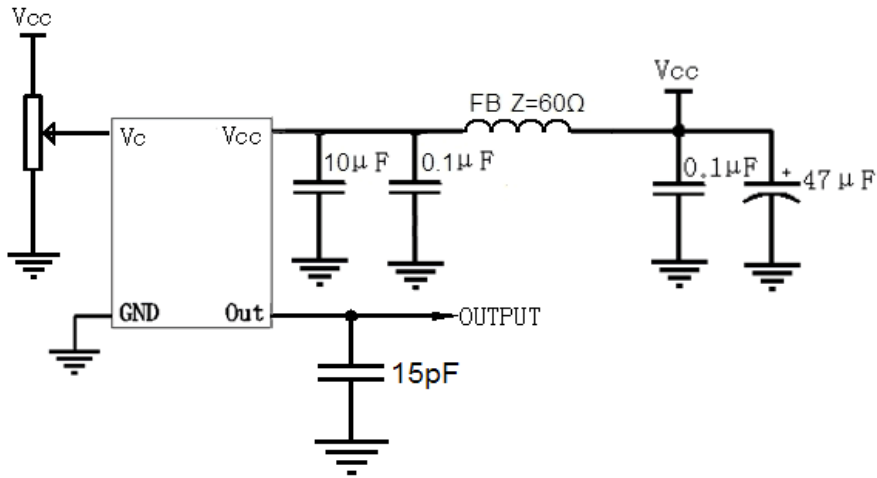
Note2: The first two xx representative: week
After two xx representative: year

Note3: Referential Weight 20.7g

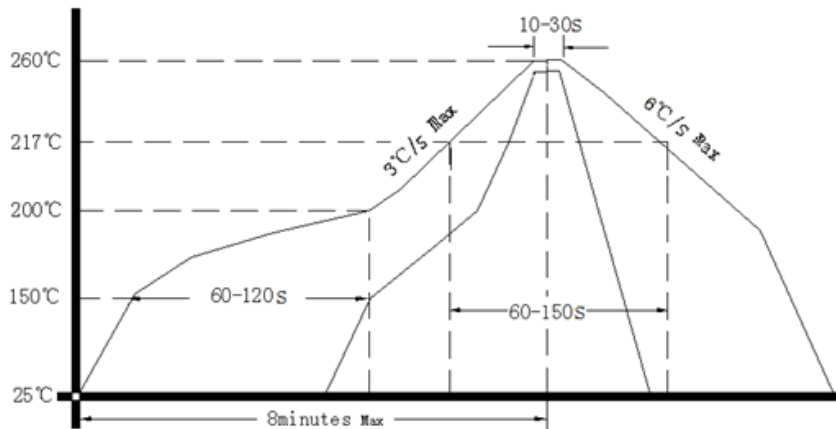
Note4: NC is not connect



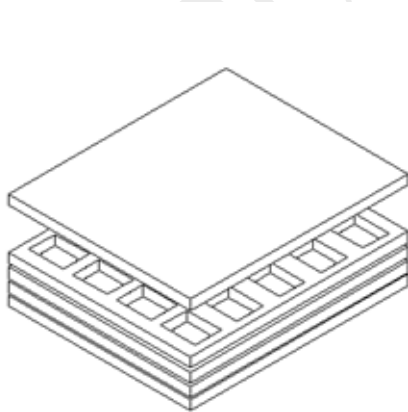
3. Test Circuit



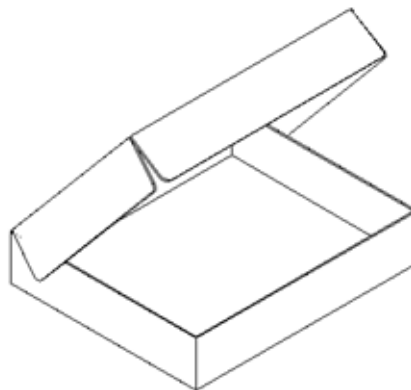
4. Reflow Soldering Curve (RoHS)



5. Package (mm)



Buffer material



Cardboard
Max 20pcs. circulator

