Travelling Merchant:_____

DATASHEET

Standard: **O23B-J146-10.00MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	
Amway.wei	Tony · Wang	James.Liu	
Date: 2011.10.27			Stamp, please! Thanks!

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.1	The first issued	Amway	2010.03.27
1.2	1. Template Updated. 2. Add “ESD Level” and “Moisture Sensitivity Level”. 3. “Pin Length”, “Phase Noise” and “Package” Changed.	Amway	2011.10.27

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1. Electrical Parameters

MODEL： O23B-J146-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		10.00		MHz	
	Output Waveform		LV-TTL			
	Output Low Voltage			+0.4	V	V_{cc}=12.0V, O_{load}=15pF
	Output High Voltage	+2.4			V	V_{cc}=12.0V, O_{load}=15pF
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall time (10%～90%)			6	ns	
	Load		15		pF	
	Spurious Suppression			-70	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-1		+1	$\times 10^{-9}$	T_A varied from -10℃ to 75℃, measurement referenced to frequency observed with T_A = 25℃, V_{cc}=12.0V, V_c=2.5, O_{load}=15pF temperature rise speed less than 2℃per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=12.0V, V_c=2.5V, and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.3		+0.3	$\times 10^{-9}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 11.4V to 12.6V, V_c =2.5V and O_{Load}=15pF.
	Frequency Tolerance vs. Load	-0.3		+0.3	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with T_A= 25℃, V_{cc}=12.0V, V_c=2.5V, and O_{Load}=15pF.
	Retrace after stabilization	-5		+5	$\times 10^{-9}$	24h off &1 h operation.
	Warm-up time			8	min	25℃ still air to within $\pm 5.0\times 10^{-8}$ of final frequency after 1h.
	Short-Term Stability: Allan Variance			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference， test after power for 1hour ref. to 25℃; 1s , using PN9000 equipment.

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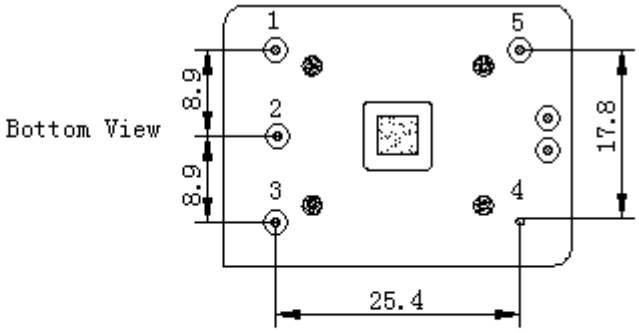
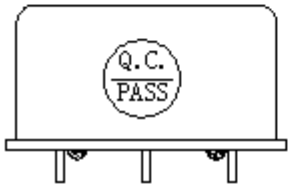
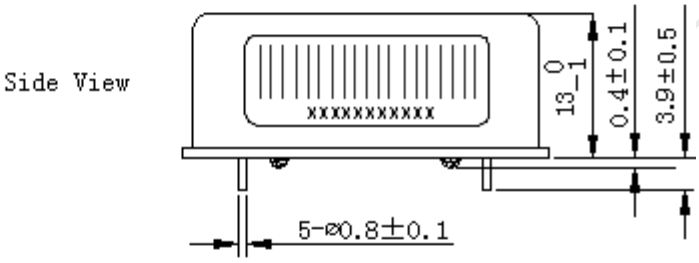
	Aging Tolerance Per Day	-0.3		+0.3	$\times 10^{-9}$	V_{cc}, V_c, T_A constant measurement referenced to frequency observed with T_A= 25℃, V_{cc}= 12.0V, V_c=2.5V,and after 30 days of operation.
	Aging Tolerance 1 Year	-0.05		+0.05	$\times 10^{-6}$	
	Aging Tolerance 10 Years	-0.4		+0.4	$\times 10^{-6}$	
Power Supply	Supply Voltage	11.4	12.0	12.6	V	
	Steady Consumption			200	mA	@25℃
	Warm up current			450	mA	
Voltage Control Characteristics	Frequency Tuning Range	-0.8		-0.4	$\times 10^{-6}$	V_c= 0 V. measurement referenced to V_c=2.5V
		-0.1		+0.1	$\times 10^{-6}$	V_c=2.5V. measurement referenced to exactly 10.00MHz
		+0.4		+0.8	$\times 10^{-6}$	V_c=5.0V. measurement referenced to V_c=2.5V
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Phase Noise	Phase Noise		-95	-90	dBc/Hz	1Hz
			-125	-120		10Hz
			-145	-140		100Hz
			-150	-147		1KHz
			-155	-152		10KHz
Environmental Conditions	Operable Temperature	-10		+75	℃	
	Storage Temperature	-55		+85	℃	
	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	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)



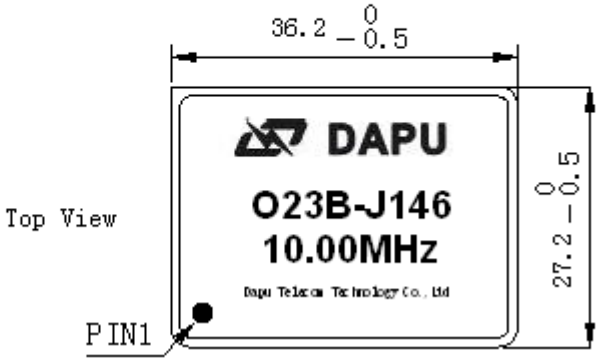


Right View



PIN FUNCTION

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

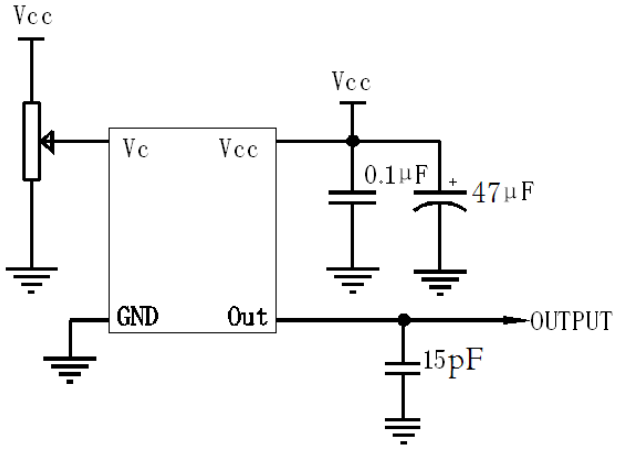


Note1: Tolerance ±0.2mm without mark

Note2: Referential Weight 21g

Note3: NC is not connect

3. Test Circuit



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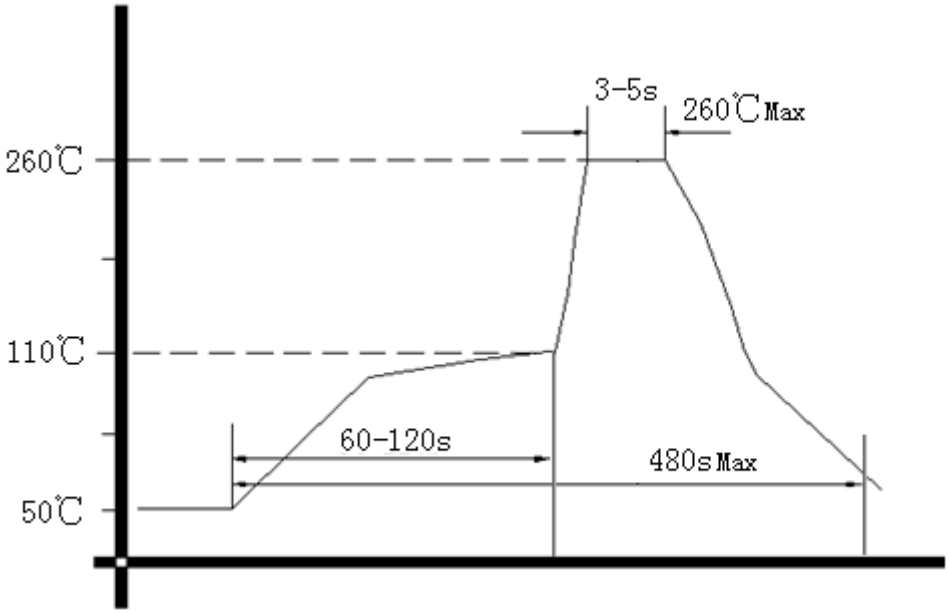
4. Wave Soldering Curve (RoHS)



5. Package（mm）