

Travelling Merchant: _____

DATASHEET

Standard: **O23B-Q444-100.00MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2014.07.07			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2014.07.03
1.1	“ Mechanical Structure-Marking ” change	<i>Amway</i>	2014.07.07



1. Electrical Parameters

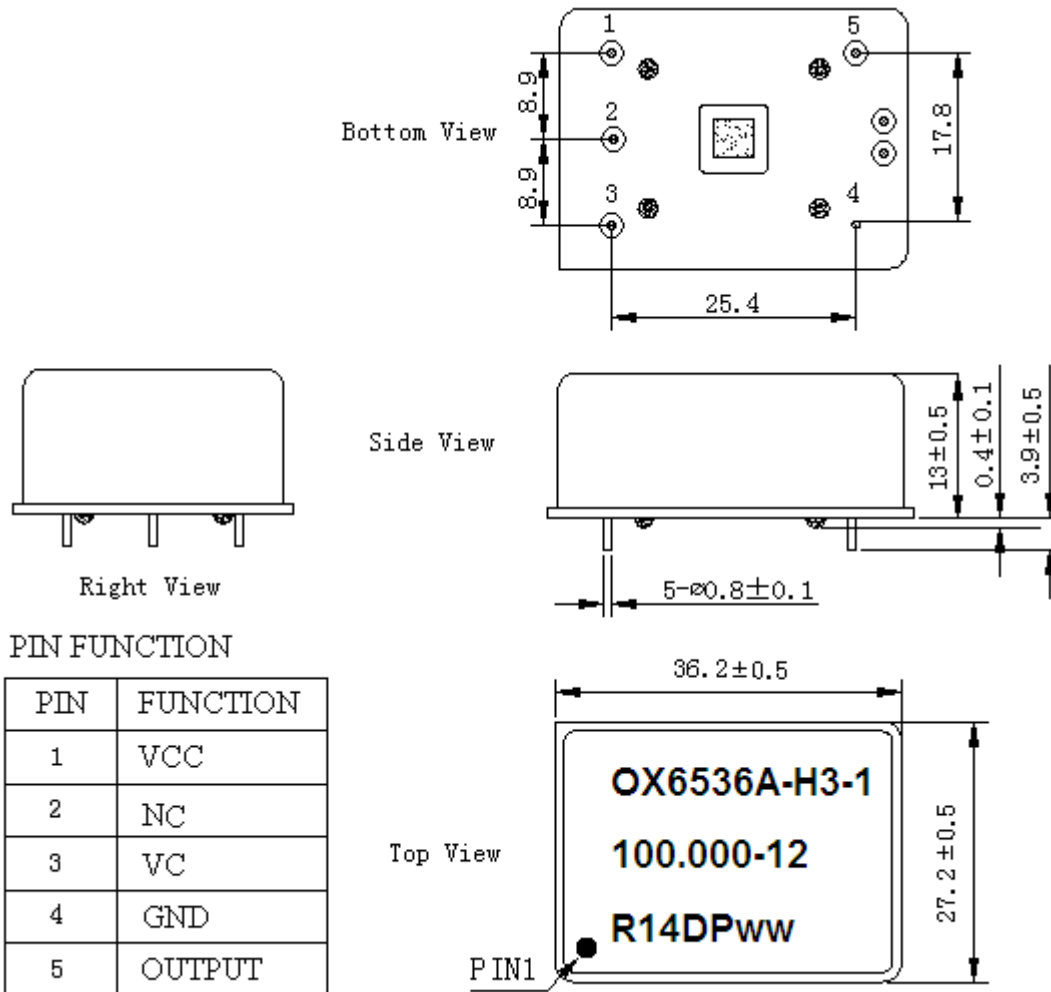
MODEL: O23B-Q444-100.00MHZ						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	100.00			MHz	
	Output Waveform	Sine wave				
	Level	5		9	dBm	
	Load	50			Ω	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-70	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.01		+0.01	$\times 10^{-6}$	T_A varied from -20°C to 85°C , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, $V_{\text{cc}}=12.0\text{V}$, $V_c=1.65\text{V}$, $O_{\text{load}}=50\Omega$, 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 $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=12.0\text{V}$, $V_c=1.65\text{V}$ and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. supply voltage	-0.01		+0.01	$\times 10^{-6}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$, V_{cc} varied from 11.4V to 12.6V, $V_c=1.65\text{V}$, $O_{\text{load}}=50\Omega$.
	Frequency Tolerance vs. Load	-0.01		+0.01	$\times 10^{-6}$	5% Load Change Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=12.0\text{V}$, $V_c=1.65\text{V}$, $O_{\text{load}}=50\Omega$.
	Short Term Stability			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C ; 1s, using PN9000 equipment.
	Aging Tolerance per day	-4		+4	$\times 10^{-9}$	V_{cc}, V_c, T_A constant Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=12.0\text{V}$, $V_c=1.65\text{V}$, $O_{\text{load}}=50\Omega$ and after 30 days of operation.
	Aging Tolerance 1 Year	-0.15		+0.15	$\times 10^{-6}$	
	Aging Tolerance 15 Years	-0.8		+0.8	$\times 10^{-6}$	
	Retrace				+5	$\times 10^{-9}$



Power Supply	Supply Voltage	11.4	12	12.6	V	
	Current Consumption			200	mA	@25°C
	Current Consumption during warm up			400	mA	
	Heat-up Time			5	min	@25°C
Voltage Control Characteristics	Frequency Tuning Range			-1	$\times 10^{-6}$	$V_c=0V$. measurement referenced to $V_c=1.65V$.
		-0.1		+0.1	$\times 10^{-6}$	$V_c=1.65V$. measurement referenced to exactly 100.00MHz.
		+1			$\times 10^{-6}$	$V_c=3.3V$. measurement referenced to $V_c=1.65V$.
	Linearity			20	%	
	Slope	Positive				
	Input Impedance	100				K Ω
Phase Noise	Phase Noise @25°C		-90	-80	dBc/Hz	10Hz
			-120	-110		100Hz
			-140	-135		1KHz
			-150	-145		10KHz
			-155	-150		100KHz
Environmental Conditions	Operable Temperature	-40		+85	°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; 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.					



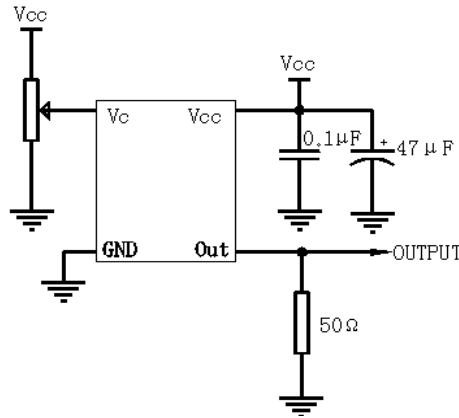
2. Mechanical Structure (mm)



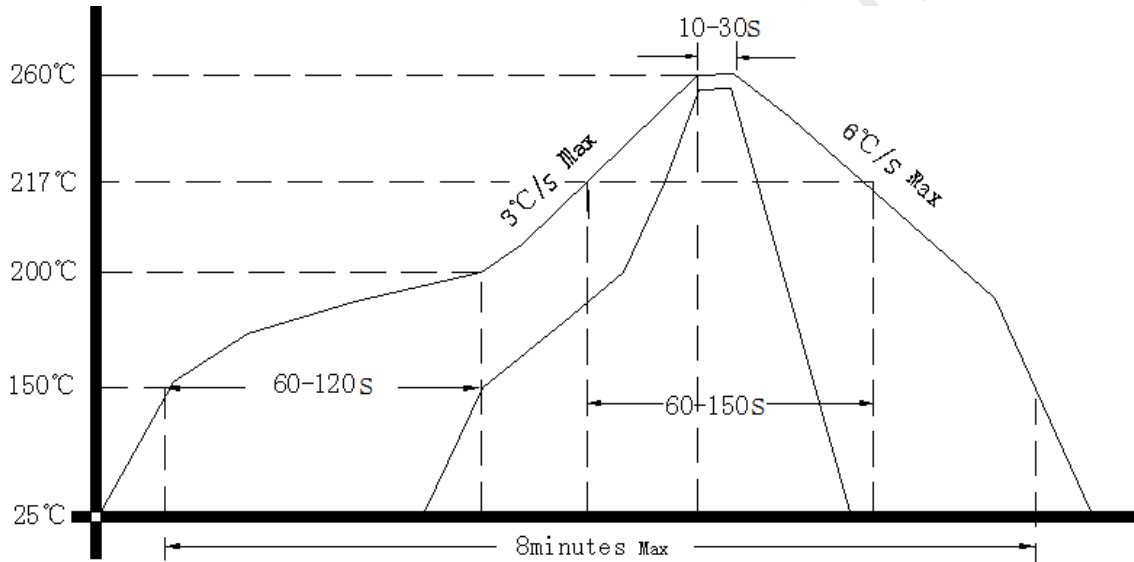
- Note1:** Tolerance ± 0.2 mm without mark
- Note2:** The two ww representative: week
- Note3:** Referential Weight 20.7g
- Note4:** NC is not connect



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package(mm)

