

OX1160 Series

OCXO, Sine wave, HCMOS, 14.4 x 9.5 x 6.5mm



- Stratum 3E
- Small size surface mount package
- Excellent frequency vs stability

Output characteristics			
Parameter	Specification		Remarks/Test condition
Frequency range	5.0MHz ~ 100.0MHz		Limited frequencies available: 10MHz, 12.8MHz, 13MHz, 15MHz, 16.32MHz, 16.384MHz, 18.432MHz, 19.2MHz, 19.44MHz, 20MHz, 25.0MHz, 26MHz, 30.72MHz, 32.768MHz, 38.88MHz, 40MHz, 50MHz, 100MHz Contact us for custom frequency requirement
Operating voltages	3.3V, 5.0V		
Output waveform	Sine wave	HCMOS	
Output load	50.0Ω	15pF	
Output amplitude (dBm) Peak-Peak(V)	5.0dBm 1.1V	-	
	8.0dBm 1.6V	-	
Harmonic	≤-40.0dBc	-	
Spurious	≤-75.0dBc	-	
Frequency stability (Typical, @ 10.00MHz)			
vs Operating temperature	±5.0ppb ~ ±50.0ppb		Table 1
Day aging	±5.0ppb		Table 1
Year aging	±500.0ppb		Table 1
Stability vs Voltage	±5.0ppb ~ ±20.0ppb		Table 1
Stability vs Load	±5.0ppb ~ ±20.0ppb		Table 1
Short-term stability	0.1ppb/S		In stable temp. Without EMI/MEC or other interferences, test at 25°C after power on for one hour
Power consumption @ 25°C			
Warm-up power consumption	2.0W		
Warm-up time	2.0 minute max		
Stable power consumption	0.6W max		
Voltage control characteristics			
Frequency pulling range	±5.0ppm ~ ±10.0ppm min		
Central control voltage	1.65V, 2.5V		
Linearity	≤10%		Positive slope
Phase noise (Typical, @ 10.00MHz)			
10Hz	-85dBc/Hz		
100Hz	-130dBc/Hz		
1kHz	-150dBc/Hz		
10kHz	-155dBc/Hz		
100kHz	-160dBc/Hz		
1MHz	-160dBc/Hz		
Environmental characteristics			
Operable working temperature	-40°C ~ +85°C		
Storage temperature	-55°C ~ +105°C		
Vibration	Amplitude 0.75mm; acceleration: 10g; 10Hz~500Hz; a cycle per 30 min, test for 2 hr in 3 directions(X,Y,Z), IEC 68-2-06 Test Fc		
Shock	50g; 11ms; half sine wave (3 directions X,Y,X), IEC 68-2-27 test Ea/severity 50A		

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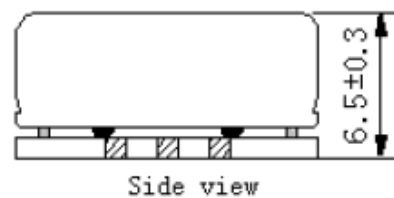
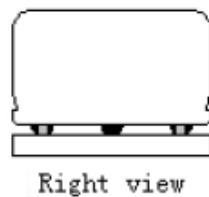
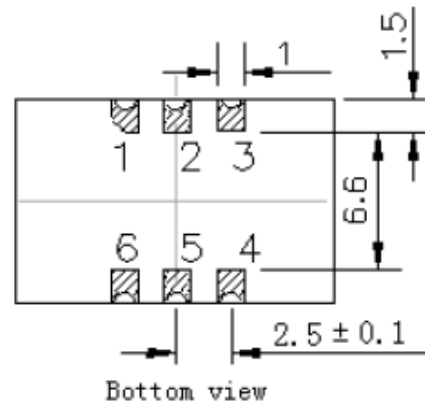
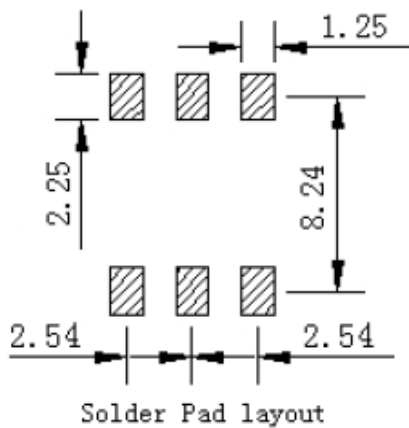


Table 1: Frequency stability selection (Typical, @ 10.00MHz)

Temperature (°C)	Temperature stability (ppb)	Day aging (ppb)	Year aging (ppb)	Stability vs Voltage (ppb)	Stability vs Load (ppb)
-20°C ~ +70	±5.0	±5.0	±500.0	±5.0	±5.0
-20°C ~ +70	±10.0	±5.0	±500.0	±10.0	±10.0
-20°C ~ +70	±50.0	±5.0	±500.0	±20.0	±20.0
-30°C ~ +75	±5.0	±5.0	±500.0	±5.0	±5.0
-30°C ~ +75	±10.0	±5.0	±500.0	±10.0	±10.0
-30°C ~ +75	±50.0	±5.0	±500.0	±20.0	±20.0
-40°C ~ +85	±5.0	±5.0	±500.0	±5.0	±5.0
-40°C ~ +85	±10.0	±5.0	±500.0	±10.0	±10.0
-40°C ~ +85	±25.0	±5.0	±500.0	±20.0	±20.0
-40°C ~ +85	±50.0	±5.0	±500.0	±20.0	±20.0

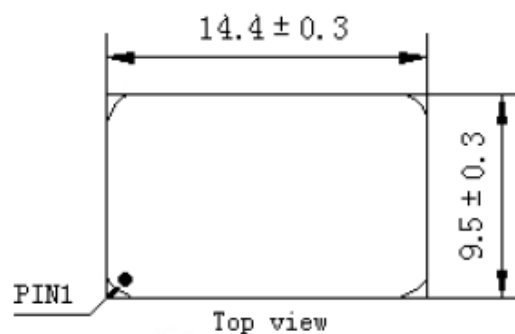
Note : Tighter aging options: ±1.0ppb day aging and ±100.0ppb year aging available for limited frequency, please enquire

Mechanical dimensions and Pin functions



PIN FUNCTION

PIN	NOTATION	FUNCTION
1	NC	Not Connect
2,5	NC	Not Connect
3	GND	GND
4	OUTPUT	RF Output
6	VCC	Supply Voltage

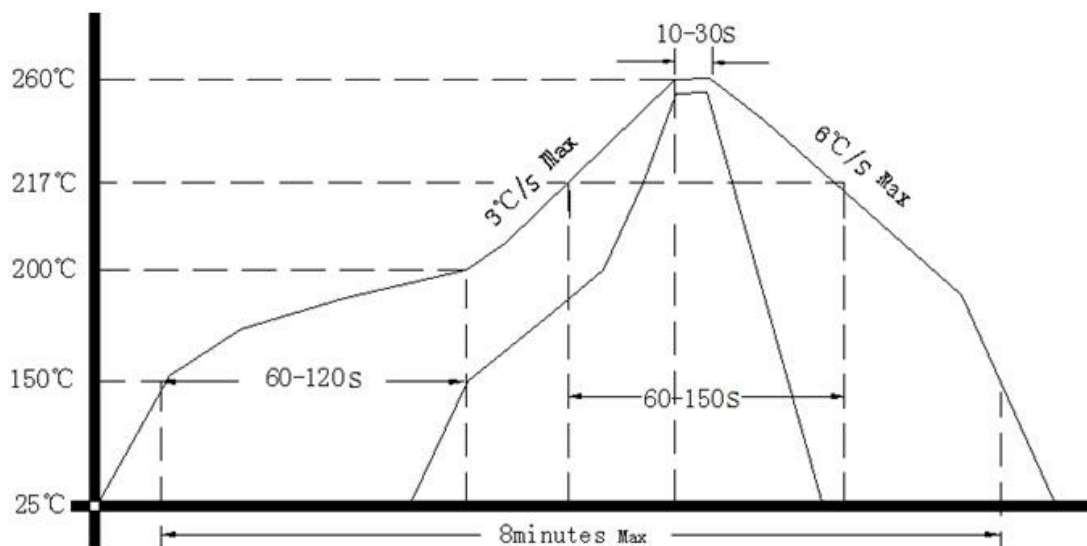


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Reflow soldering curve (RoHS)



ACT part number

ACT will provide a unique part number with full specification based on your requirements, please provide the following details.

ACT series	Frequency (MHz)	Supply voltage (V)	Output type	Frequency stability (ppb)	Operating temperature range (°C)	Frequency tuning	Frequency pulling (ppm)	Central control voltage (Vc)
OX1160						Yes No		

Drawing control: (Internal use only)
 Issue number: 1
 Date : 01/06/2017
 Internal reference: D1

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