

PROGRAMMABLE CRYSTAL OSCILLATOR

YSV310PR VCXO



Applications

- 10 GB Ethernet, SONET, SATA, SAS, Fibre Channel

Features

- Frequency range:10MHz-250MHz.
- Ultra Small SMD seam sealed crystal oscillator units.

- Package Size: 3.2x2.5, 5.0x3.2, 7.0x5.0mm.
- High precision characteristic covering up to wide frequency range.



Specifications

Item/Type	SMD VCXO	CMOS
Frequency Range		10MHz to 250MHz, or specify
Supply Voltage		2.5V or 3.3V
Total Stability		±50ppm, or specify
Absolute Pull Range		±50ppm Min
Input Resistance		1Mohms Typ
Current		40mA Max
Output Load CMOS		15pF
Operating Temperature Range		-40~+85°C, or specify
Storage Temperature Range		-55~+125°C
Voltage Vol (Max.) / Vol (Min.)		VOH = 90%Vdd/VOL = 10%Vdd
Input Voltage		VIH=70% Vcc Min, VIL=30% Vcc Max.
Duty Cycle		45~55%
Rise(Tr) /Fall(Tf) Time		4ns Max.
Start-up Time		10ms Max.
Phase Jitter(12KHz~20MHz)		1.0pS Typ.
Frequency Aging (at 25°C)		±3 ppm / year Max.

Pin Dimension

Pin	#1	#2	#3	#4	#5	#6
FUNCTION	Vcon	NC	GND	OUT	NC	VDD

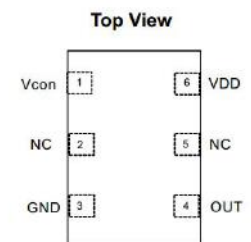


Figure 1. Pin Assignments

Dimensions and Patterns [unit:mm]

Package Size – Dimensions (Unit: mm)	Recommended Land Pattern (Unit: mm)
<p>3.2x2.5mm</p>	

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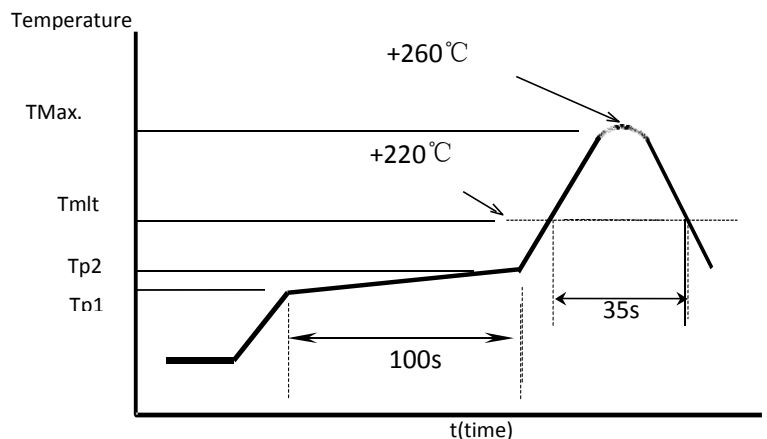
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<p>5.0x3.2mm</p>	<p>Top View Suggested Layout</p>
<p>7.0x5.0mm</p>	<p>Top View Suggested Layout</p>
<p>Notes: 1.A capacitor of value 0.01uf~0.1uf or higher between Vdd and GND is required.</p>	

Reflow Soldering Profile

- Pre Heating Temperature Tp1 ~ Tp2 = + 170 °C
- Heating Temperature
- TMit = + 220 °C
- Peek Temperature
- TMax. = + 260 °C
- Point of measuring
In case of Solder ability Terminal.
- In case of Resistance to soldering heat Surface.

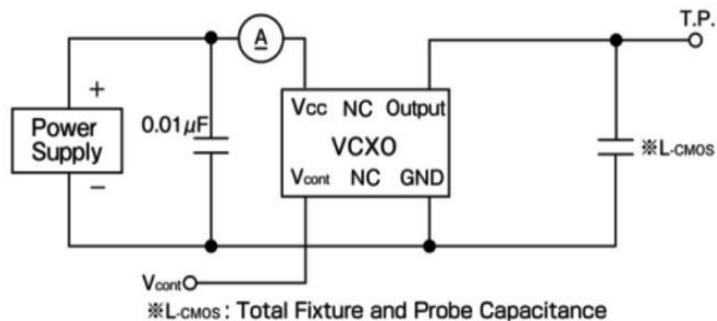


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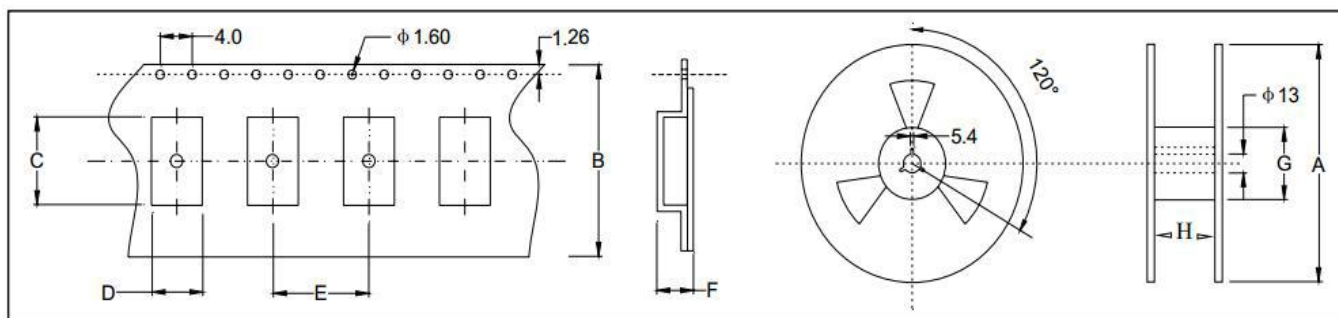
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Test Circuit



Taping Specification(Unit: mm)



Size(OSC)	A	B	C	D	E	F	G	H
SMD-7050	180±2.0	16.0±0.3	7.50±0.1	5.50±0.1	8.0±0.1	2.00±0.1	61.0±1.0	16.0±1.0
SMD-5032	180±2.0	12.0±0.3	5.40±0.1	3.60±0.1	8.0±0.1	1.70±0.1	61.0±1.0	12.0±1.0
SMD-3225	180±2.0	8.0±0.3	3.40±0.1	2.70±0.1	4.0±0.1	1.50±0.1	61.0±1.0	8.0±1.0