

# CRYSTAL OSCILLATOR

## YSO130HR High Voltage



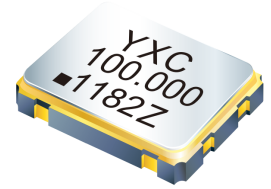
### Applications

- Consumer Electronics
- Industrial Control

### Features

- Frequency range:1MHz-100MHz.
- Ultra Small SMD seam sealed crystal oscillator units.

- Package Size: 3.2x2.5 , 5.0x3.2  
7.0x5.0mm



## Specifications

|  |                                       |
|--|---------------------------------------|
| Frequency Range                              | 1MHz to 100MHz, or specify            |
| Parameter                                    | 5V                                    |
| Output Type                                  | CMOS                                  |
| Frequency Tolerance(at 25°C)                 | ±10ppm, ±20ppm, or specify            |
| Output Load                                  | 15pF                                  |
| Operating Temperature Range                  | -40~+85°C, -40~+125°C, or specify     |
| Storage Temperature Range                    | -55~+125°C                            |
| Frequency Versus Temperature Characteristics | ± 20ppm, ± 30ppm, ± 50ppm, or specify |
| Voltage Vol ( Max. ) / Vol ( Min. )          | VOH = 90%Vdd/VOL = 10%Vdd             |
| Duty Cycle                                   | 45~55%                                |
| Rise(Tr) /Fall(Tf) Time                      | 4ns Max.                              |
| Start-up Time                                | 3ms Max.                              |
| Supply Current                               | See Below                             |
| Frequency Aging (at 25°C)                    | ±3 ppm / year Max.                    |

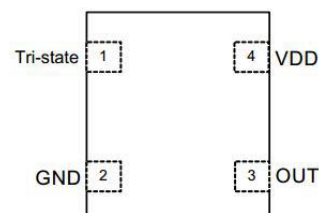
## Current Consumption

| Power Dissipation 15pF only |           |          |
|-----------------------------|-----------|----------|
| Frequency                   | 5V        |          |
|                             | 7050/5032 | 3225     |
| 1~36MHZ                     | 8mA max   | 8mA max  |
| 36~70MHZ                    | 20mA max  | 20mA max |
| 70~100MHZ                   | 55mA max  | 25mA max |

## Pin Dimension

| Pin      | #1        | #2  | #3     | #4  |
|----------|-----------|-----|--------|-----|
| FUNCTION | Tri-state | GND | OUTPUT | VDD |

### Pin Assignments



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### Dimensions and Patterns [unit:mm]

| Package Size – Dimensions (Unit: mm)  | Recommended Land Pattern (Unit: mm) |
|---|-------------------------------------|
| <p>3.2x2.5mm</p>  |                                     |
| <p>5.0x3.2mm</p>  |                                     |
| <p>7.0x5.0mm</p>  |                                     |
| <p><b>Notes:</b><br/>1.A capacitor of value 0.01uf~0.1uf or higher between Vdd and GND is required.</p> |                                     |

# CRYSTAL OSCILLATOR

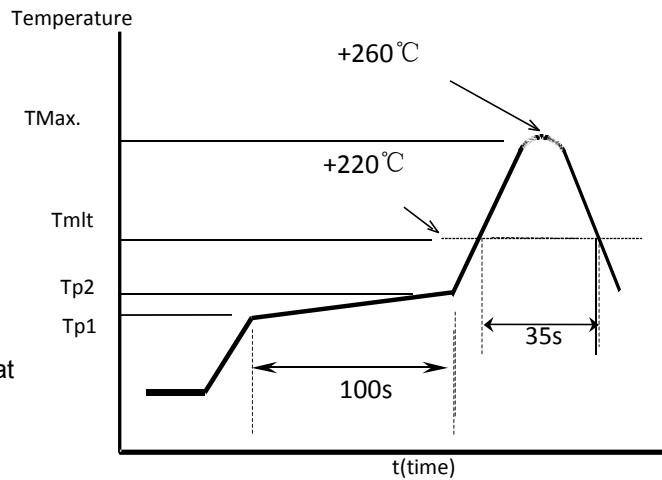
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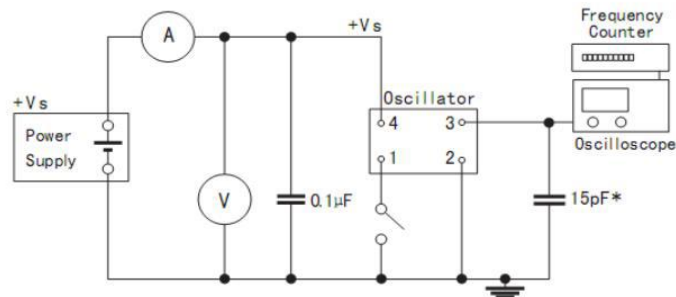
### Reflow Soldering Profile

Pre Heating Temperature  
 Tp1 ~ Tp2 = + 170 °C  
 Heating Temperature  
 TMit = + 220 °C  
 Peak Temperature  
 TMax. = + 260 °C

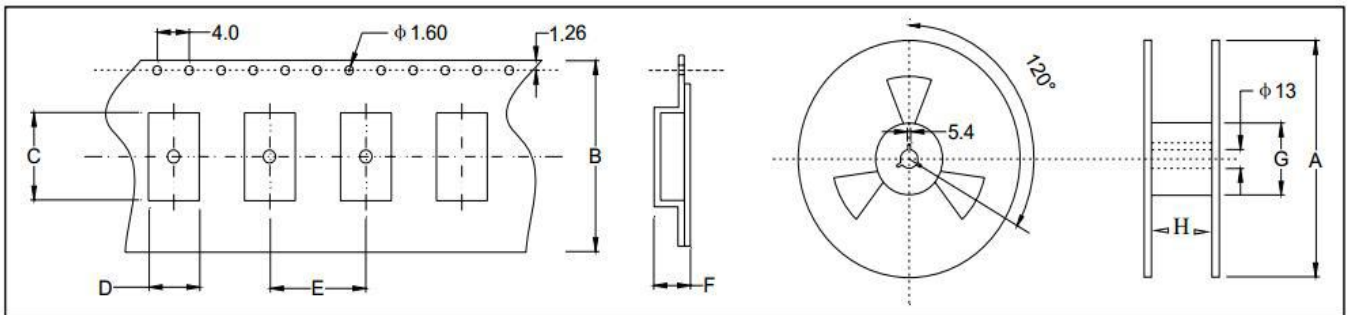
Point of measuring  
 In case of Solder ability  
 Terminal.  
 In case of Resistance to soldering heat  
 Surface.



### 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  |