

# CRYSTAL OSCILLATOR



## YSO170PS EMI Reduction



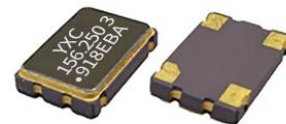
### Applications

- Any frequency

### Features

- Reduce electromagnetic interference (EMI) by approx. 7 dB to 16 dB

- Low jitter design with new developed IC
- Package Size: 5.0\*3.2 7.0\*5.0.



### Specifications

|                                   |                                                                                                                                            |                  |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Frequency Range                   | 5.0*3.2*1.2mm                                                                                                                              | 7.0*5.0*1.4mm    |
| Parameter                         | 6.0MHz to 160MHz                                                                                                                           | 3.5MHz to 165MHz |
| Supply Voltage Variation (Vdd)10% | 3.3V ± 10%                                                                                                                                 |                  |
| Frequency Tolerance               | ±25ppm, ±50ppm, ±100ppm, or specify                                                                                                        |                  |
| Operating Temperature Range       | -10~+70℃, -40~+85℃, or specify                                                                                                             |                  |
| Storage Temperature Range         | -55~+125℃                                                                                                                                  |                  |
| Working Temperature               | -40~+85℃                                                                                                                                   |                  |
| Output Type                       | CMOS                                                                                                                                       |                  |
| Rise Time/Fall Time               | 4ns Max                                                                                                                                    |                  |
| Duty Cycle                        | 45~55%                                                                                                                                     |                  |
| Start-up Time                     | 2.0ms (typ) : 5ms (max)                                                                                                                    |                  |
| Frequency Aging (at 25℃)          | ±5 ppm / year Max.                                                                                                                         |                  |
| Current Consumption               | 3.5~30MHZ:10mA(typ), 15mA(max)<br>30.1~80MHZ:20mA(typ), 25mA(max)<br>80.1~120MHZ:24mA(typ), 30mA(max)<br>120.1~165MHZ:30mA(typ), 35mA(max) |                  |
| Spread Type                       | Total%                                                                                                                                     | Down Spread      |
| Spread Percentage                 | 1.0%                                                                                                                                       | -1.0% ( D1.0 )   |
|                                   | 3.0%                                                                                                                                       | -3.0% ( D3.0 )   |

### Dimensions and Patterns [unit:mm]

| Package Size – Dimensions (Unit: mm)                                                                                                                                                                                                                                                                   | Recommended Land Pattern (Unit: mm)                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>5.0*3.2mm</p> <p>Top View: 5.0 ± 0.1, 3.2 ± 0.1, Marking</p> <p>Bottom View: 1.0 ± 0.1, 1.2 ± 0.1, 2.2, 2.54, 1.5, 2.54</p> <p>Land Pattern: 1.6, 2.5, 2.54</p> <p>Side View: 1.2 ± 0.1</p> <p>Pad Connections:<br/>Pad 1 : OE<br/>Pad 2 : Ground<br/>Pad 3 : Output<br/>Pad 4 : Supply Voltage</p> | <p>7.0*5.0mm</p> <p>Top View: 7.0 ± 0.2, 5.0 ± 0.2, Marking</p> <p>Bottom View: 1.4 ± 0.1, 3.7, 5.08, 2.0, 2.54, 2.2</p> <p>Land Pattern: 5.08, 4.2, 2.2</p> <p>Side View: 1.4 ± 0.1</p> <p>Pad Connections:<br/>Pad 1 : OE<br/>Pad 2 : Ground<br/>Pad 3 : Output<br/>Pad 4 : Supply Voltage</p> |