T·50·23

SXO SERIES

MINIATURE CMOS
QUARTZ CRYSTAL OSCILLATORS

1.0 MHZ   50 MHz

The SXO series is a miniature crystal oscillator. It incorporates a CMOS IC and is hermetically sealed into a metallic case. This series is used widely for high-density mounting of models to be mass-produced as a clock generator of OA equipment and microprocessors.

Crystal units with a stand-off function and surface mount units are available.

■ FEATURES

- Miniaturized crystal oscillator incorporating a CMOS IC whose height (3.5mm) is the same as the crystal resonator.
- Hermetically sealed metallic case.
- Case and terminals are attached.
- A stand-off function can be equipped (optional).
- A J-lead surface mount type is available.
- A wide range of standard frequencies are available.

■ SPECIFICATIONS

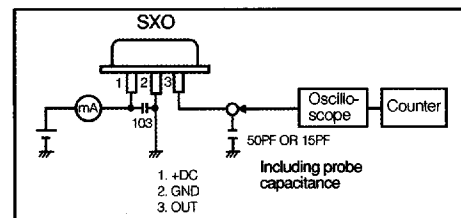| Item	SXO-5	SXO-7
Oscillation frequency	1.0 MHz-20 MHz	20.1 MHz-50 MHz
Oscillation frequency deviation	±100 ppm	±100 ppm
Operating temperature range	-10° C - +70° C	-10° C - +70° C
Storage temperature range	-20° C - +80° C	-20° C - +80° C
Power supply voltage	5 ± 0.5V	5 ± 0.5V
Load	10 TTL/CMOS*	2TTL/CMOS**
Rise and fall time	20 ns max.	15 ns max.
Output waveform	60/40%	60/40%
Start up time	3 ns max.	10 ns max.
Power consumption	20 mA max.	25 mA max.

*CMOS LOAD: CL = 50 pf max.
**CMOS LOAD: CL = 15pf.

■ STANDARD FREQUENCIES (MHz)

SXO-5, 5S, 5F			SXO-7, 7S, 7F	
1.000	8.000	15.0000	21.0526	36.000
1.8432	8.7000	15.9744	24.0000	40.000
2.4576	9.216	16.0000	24.576	48.000
3.6864	10.000	16.257	25.175	
4.0000	12.000	18.432	28.322	
4.9152	12.800	19.200	30.000	
7.3728	14.31818	19.6608	32.000	
7.9872	14.7456	20.000	32.514	

■ DIMENSIONS (Unit: mm)

SXO-5 SXO-7 (Standard)

SXO-5S SXO-7S (With a stand-off function)

SXO-5F SXO-7F (J - Lead surface mount)

■ MEASURING CIRCUIT

SXO

1. +DC
2. GND
3. OUT

50PF OR 15PF
Including probe capacitance
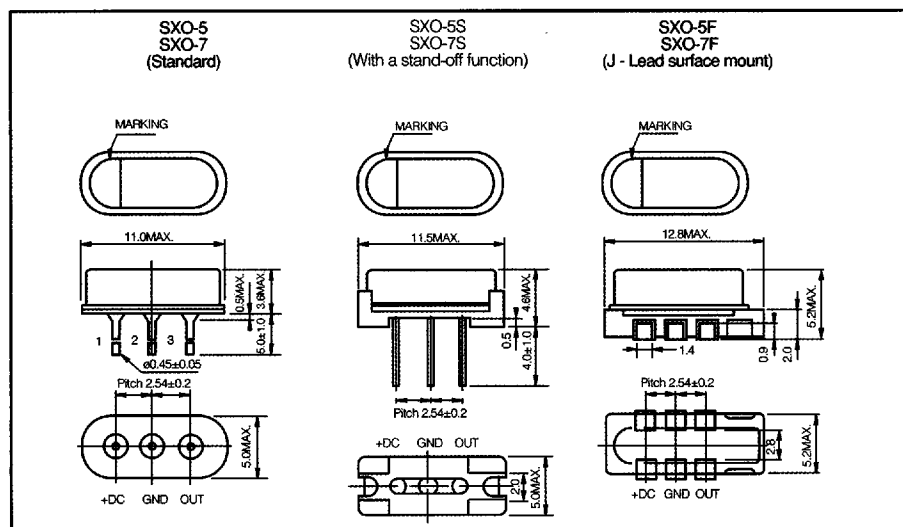
Handling Instructions:

1. The SXO series incorporates a CMOS IC which is provided with an antielectrostatic circuit. Nevertheless, please be careful about static electricity.

2. No capacitor is equipped between power supplies (+DC-GND). Insert a capacitor (0.01μF for 25 MHz below or 0.001μF for over 25 MHz) at the position nearest to the power terminals (+DC-GND) to prevent overvoltage and overcurrent.

3. Applying the reverse voltage may cause shortcircuiting. Be careful not to mistake terminal connection.

4. Your crystal oscillator is a precision part and is vulnerable to mechanical shock. Do not apply any extreme shock.