

## Surface Mount Type

**7N**

[ 5.0×3.2×1.10 mm ]

**6N**

[ 7.0×5.0×1.30 mm ]

**Output**

**CMOS**

Supply Voltage

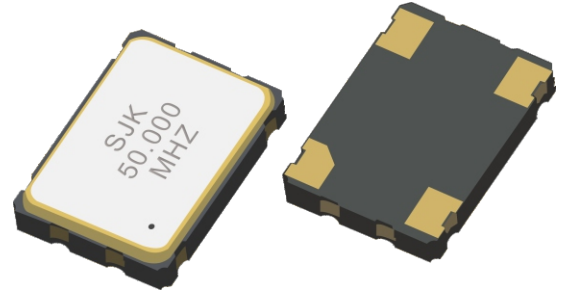
**1.8V~5.0V**

Frequency Range

**32 kHz~220 MHz**

## Features

- Small size SMD crystal oscillator with 5.0×3.2 (5032), 7.0×5.0 (7050)
- Simple Package Crystal Oscillator (SPXO)
- CMOS output, frequency range from 32.768 kHz to 220 MHz
- Low voltage operation and low current consumption
- RoHS Compliant
- Automatic mount and re-flow soldering
- Tri-state available
- Applications: Server, PC, Telecommunications, HDTV, Test equipment, Radio communications, and more



## Standard Specifications

Item / Type	7N (SMD 5032 SPXO)		6N (SMD 7050 SPXO)	
Dimensions	5.0×3.2×1.10 mm		7.0×5.0×1.30 mm	
Output	CMOS			
Output load	15pF, or specify			
Output frequency range	32.768 kHz~220 MHz		32.768 kHz~220 MHz	
Supply voltage	1.8 V~5.0 V			
Frequency tolerance (All condition)	±25 ppm, ±50 ppm, ±100 ppm			
Operating temperature	-20~+70°C, -40~+85°C			
Supply consumption	22mA max. (@1.8V)	25mA max. (@2.5V)	35mA max. (@3.3V)	40mA max. (@5.0V)
Stand-by current	10µA max. (@1.8V)	10µA max. (@2.5V)	10µA max. (@3.3V)	10µA max. (@5.0V)
Symmetry	45 % to 55 %			
Output voltage Voh (min.)	90% Vcc min. /Vcc-0.4V min.			
Output voltage Vol (max.)	10% Vcc max. /0.4V max.			
Input voltage Vih (min.)	80% Vcc min.			
Input voltage Vil (max.)	20% Vcc max.			
Rise time / Fall time	7ns max.			
Start-up time	5ms max.			
Storage temperature	-55~+125°C			
Aging	±3ppm /year max.			

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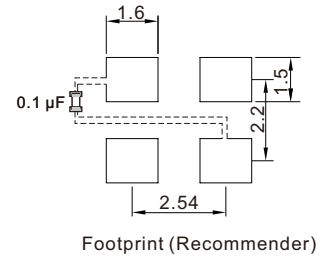
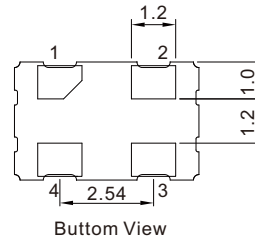
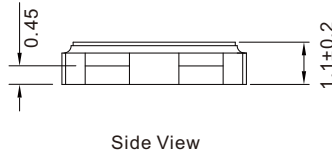
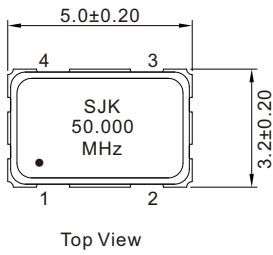
**1.8V~5.0V**

Frequency Range

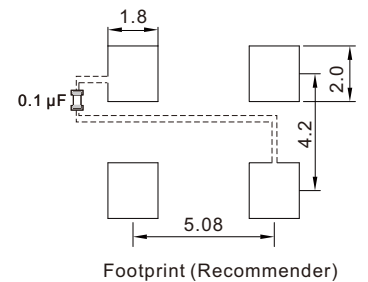
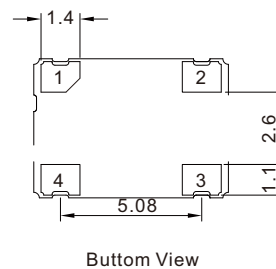
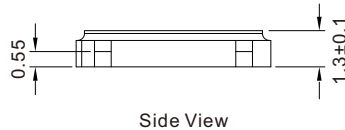
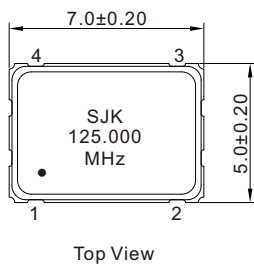
**32 kHz~220 MHz**

## Outline Dimensions (Unit: mm)

### 7N (SMD 5032 SPXO)



### 6N (SMD 7050 SPXO)



## Pin Map

Pin	Connection	Function		
		$\overline{ST}$ function	Oscillator circuit	Output
1	$\overline{ST}$	High or "open"	Oscillation	Specified frequency: Enable
		LOW	Oscillator stop	High impedance: Disable
2	GND	Ground		
3	OUT	Clock output		
4	Vcc	Power supply		