

# SMD Crystal Oscillator

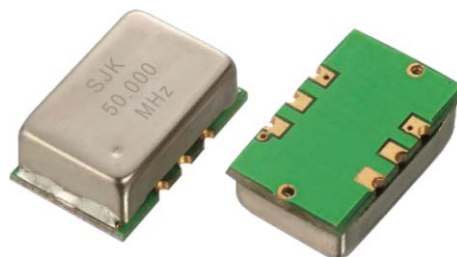


Size: 14.0×9.0×5.4 mm

9N Series SMD Crystal Oscillator

## Features

- Surface mount package.
- High precision characteristic covering up to wide frequency range from 1MHz up to 170MHz.
- Either fundamental and 3rd overtone solution.
- CMOS output.
- 3-state function.
- Automatic mounting and reflow soldering.
- Applications: Fibre channel, Gigabit ethernet, Serial ATA, Serial attached SCSI, PCI-Expree, SDH, SONET, etc.
- Excellent low phase noise and jitter.
- RoHS Compliant / Pb-Free.



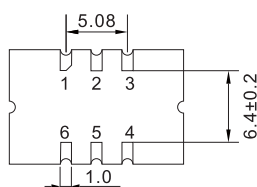
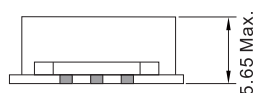
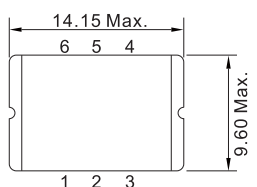
## Electrical Specifications

Item /Type	9N (9N Series SMD Crystal Oscillator)		
Output Type	CMOS		
Output Load	15pF	15pF, 30pF	15pF, 50pF
Oscillation Mode	Fundamental / 3rd Overtone		
Supply Voltage	1.8V	2.5V, 2.8V, 3.3V	5.0V
Frequency Range	1 ~ 170 MHz		
Overall Frequency stability*	±20ppm, ±25ppm		
Operating Temperature Range	-20~+70°C, -40~+85°C, or specify		
Storage Temperature Range	-55~+125°C		
Rise(Tr) / Fall(Tf) Time(20%~80%)	10ns(1~10MHz), 7ns(20~50MHz), 5ns(>50MHz) Max.		
Supply Current	50mA Max.		
Symmetry	40~60%		
Start-up Time	10ms Max.		
Phase Jitter (12KHz~20MHz)	1ps Max.		

\* Inclusive of frequency tolerance at 25°C, variation over temperature, supply voltage variation, aging and vibration.

## Dimensions

Units:mm



### PAD FUNCTION:

- 1: ENABLE CONTROL or NC
- 2: ENABLE CONTROL or NC
- 3: GND
- 4: OUT
- 5: NC
- 6: VDD

\* External high frequency power supply decoupling required.

