

Product Overview

NCS20062: Operational Amplifier, 5.5V Rail-to-Rail Input and Output, 3 MHz, Dual

For complete documentation, see the data sheet.

The NCS2006 series operational amplifiers provide rail-to-rail input and output operation, 3 MHz bandwidth, and are available in single, dual, and quad configurations. Rail-to-rail operation gives designers use of the entire supply voltage range while taking advantage of the 3 MHz bandwidth. The NCS2006 can operate on supply voltages from 1.8 to 5.5 V over a temperature range from -40 to 125°C. At a 1.8 V supply, this device has a slew rate of 1.2 V/s while consuming only 125 μ A of quiescent current per channel. Since this is a CMOS device, high input impedance and low bias currents make it ideal for interfacing to a wide variety of signal sensors. The NCS2006 devices are available in a variety of compact packages.

Features

- Rail-to-Rail Input and Output
- Wide Supply Range: 1.8 to 5.5 V
- Wide Bandwidth: 3 MHz
- High Slew Rate: 1.2 V/s at $V_S = 1.8$ V
- Low Supply Current: 125 μ A per Channel at $V_S = 1.8$ V
- Low Input Bias Current: 1 pA Typical
- Wide Temperature Range: -40 to 125°C
- Available in a Variety of Packages
- NCV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q100 Qualified and PPAP Capable
- These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant

For more features, see the data sheet

Applications

- Unity Gain Buffer
- Battery Powered / Low Quiescent Current Applications
- Low Cost Current Sensing
- Automotive

Part Electrical Specifications

| Product | Compliance | Status | Rail to Rail | Channels | V _S Min (V) | V _S Max (V) | I _g Typ (mA) | V _{OS} Max (mV) | GB W Typ (MHz) | SR Typ (V/μs) | I _o Typ (mA) | ΔV _{OS} /ΔT (μV/C) | e _N (nV/√Hz) | I _{bias} Typ (pA) | CMR R Typ (dB) | Architecture | Temperature Range (°C) | Package Type |
|----------------|---|--------|---------------|----------|------------------------|------------------------|-------------------------|--------------------------|----------------|---------------|-------------------------|-----------------------------|-------------------------|----------------------------|----------------|--------------|------------------------|--------------|
| NCS20062DMR2G | <u>Pb-free</u> <u>Halide free</u> | Active | Input /Output | 2 | 1.8 | 5.5 | 0.125 | 3.5 | 3 | 1.2 | 15 | 1 | 20 | 1 | 79 | CMOS | -40 to 125 | Micr o8™ |
| NCS20062DR2G | <u>Pb-free</u> <u>Halide free</u> | Active | Input /Output | 2 | 1.8 | 5.5 | 0.125 | 3.5 | 3 | 1.2 | 15 | 1 | 20 | 1 | 79 | CMOS | -40 to 125 | SOI C-8 |
| NCS20062DTBR2G | <u>Pb-free</u> <u>Halide free</u> | Active | Input /Output | 2 | 1.8 | 5.5 | 0.125 | 3.5 | 3 | 1.2 | 15 | 1 | 20 | 1 | 79 | CMOS | -40 to 125 | TSS OP-8 |
| NCV20062DMR2G | <u>AEC Qualified</u> <u>PPAP Capable</u> <u>Pb-free</u> <u>Halide free</u> | Active | Input /Output | 2 | 1.8 | 5.5 | 0.125 | 3.5 | 3 | 1.2 | 15 | 1 | 20 | 1 | 79 | CMOS | -40 to 125 | Micr o8™ |
| NCV20062DR2G | <u>AEC Qualified</u> <u>PPAP Capable</u> <u>Pb-free</u> <u>Halide free</u> | Active | Input /Output | 2 | 1.8 | 5.5 | 0.125 | 3.5 | 3 | 1.2 | 15 | 1 | 20 | 1 | 79 | CMOS | -40 to 125 | SOI C-8 |
| NCV20062DTBR2G | <u>AEC Qualified</u> <u>PPAP Capable</u> <u>Pb-free</u> <u>Halide free</u> | Active | Input /Output | 2 | 1.8 | 5.5 | 0.125 | 3.5 | 3 | 1.2 | 15 | 1 | 20 | 1 | 79 | CMOS | -40 to 125 | TSS OP-8 |

For more information please contact your local sales support at www.onsemi.com.

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