

Product Overview

NCS20091: Operational Amplifier, 5.5V Rail-to-Rail Input and Output, 350 kHz, Single

For complete documentation, see the data sheet.

The NCS2009 series operational amplifiers provide rail-to-rail input and output operation, 350 kHz 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 350 kHz bandwidth. The NCS2009 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 0.15 V/s while consuming only 20 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 NCS2009 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: 350 kHz
- High Slew Rate: 0.15 V/s at $V_S = 1.8$ V
- Low Supply Current: 20 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_q Typ (mA)	V_{OS} Max (mV)	GBW Typ (MHz)	SR Typ (V/ μ s)	I_o Typ (mA)	$\Delta V_{OS}/\Delta T$ (μ V/ $^{\circ}$ C)	e_N (nV/ \sqrt Hz)	I_{bias} Typ (pA)	CMRR Typ (dB)	Architecture	Temperature Range ($^{\circ}$ C)	Package Type
NCS20091MUTAG	Pb-free Halide free	Active																UDFN-6
NCS20091SN2T1G	Pb-free Halide free	Active	Input /Output	1	1.8	5.5	0.02	4	0.35	0.15	7.5	1	40	1	79	CMOS	-40 to 125	TSOP-5
NCS20091SN3T1G	Pb-free Halide free	Active	Input /Output	1	1.8	5.5	0.02	4	0.35	0.15	7.5	1	40	1	79	CMOS	-40 to 125	TSOP-5
NCS20091SQ3T2G	Pb-free Halide free	Active	Input /Output	1	1.8	5.5	0.02	4	0.35	0.15	7.5	1	40	1	79	CMOS	-40 to 125	SC-88A
NCV20091SN2T1G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Input /Output	1	1.8	5.5	0.02	4	0.35	0.15	7.5	1	40	1	79	CMOS	-40 to 125	TSOP-5

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

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