

Product Overview

NCS20082: Operational Amplifier, 5.5V Supply Voltage, Rail-to-Rail Input and Output, 1.2 MHz

For complete documentation, see the data sheet.

The NCS2008x series operational amplifiers provide rail-to-rail input and output operation, 1.2 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 1.2 MHz bandwidth. The NCS2008x 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 0.4 V/s while consuming only 42 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 NCS2008x 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: 1.2 MHz
- High Slew Rate: 0.4 V/s at $V_S = 1.8$ V
- Low Supply Current: 42 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)	GBW Typ (MHz)	SR Typ (V/μs)	I _o Typ (mA)	ΔV _{OS} /ΔT (μV/C)	e _N (nV/√Hz)	I _{bias} Typ (pA)	CMRR Typ (dB)	Architecture	Temperature Range (°C)	Package Type
NCS20082DMR2G	<u>Pb-free</u> <u>Halide free</u>	Active	Input /Output	2	1.8	5.5	0.042	3.5	1.2	0.4	11	1	30	1	79	CMOS	-40 to 125	Micr o8™
NCS20082DR2G	<u>Pb-free</u> <u>Halide free</u>	Active	Input /Output	2	1.8	5.5	0.042	3.5	1.2	0.4	11	1	30	1	79	CMOS	-40 to 125	SOI C-8
NCS20082DTBR2G	<u>Pb-free</u> <u>Halide free</u>	Active	Input /Output	2	1.8	5.5	0.042	3.5	1.2	0.4	11	1	30	1	79	CMOS	-40 to 125	TSS OP-8
NCV20082DMR2G	<u>AEC Qualified</u> <u>PPAP Capable</u> <u>Pb-free</u> <u>Halide free</u>	Active	Input /Output	2	1.8	5.5	0.042	3.5	1.2	0.4	11	1	30	1	79	CMOS	-40 to 125	Micr o8™
NCV20082DR2G	<u>AEC Qualified</u> <u>PPAP Capable</u> <u>Pb-free</u> <u>Halide free</u>	Active	Input /Output	2	1.8	5.5	0.042	3.5	1.2	0.4	11	1	30	1	79	CMOS	-40 to 125	SOI C-8
NCV20082DTBR2G	<u>AEC Qualified</u> <u>PPAP Capable</u> <u>Pb-free</u> <u>Halide free</u>	Active	Input /Output	2	1.8	5.5	0.042	3.5	1.2	0.4	11	1	30	1	79	CMOS	-40 to 125	TSS OP-8

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

Created on: 4/8/2019