



## Product Overview

### NCS214R: Current Sense Amplifier, 26V, Low-/High-Side Voltage Out, Bidirectional Current Shunt Monitor

For complete documentation, see the data sheet.



The NCS214R and NCV214R (AEC- Q100 qualified) are voltage output, current sense amplifiers that can measure voltage across shunts at common-mode voltages from -0.3 V to 26 V, independent of supply voltage. With a fixed gain of 100V/V, the low offset of the zero-drift architecture enables current sensing across the shunt with maximum voltage drops as low as 10 mV full-scale. These devices can operate from a single +2.2 V to +26 V power supply, drawing a maximum of 80  $\mu$ A of supply current. Available in SC70-6 and UQFN10 packages.

Additional gain options are available:

NCS213R (50 V/V), NCS210R (200 V/V), NCS211R (500 V/V)

Similar Products:

Gain (V/V)	200
Gain Error (%)	1
Offset Voltage ( $\mu$ V)	35

### Features

- Wide Common Mode Input Range: -0.3 to 26V
- Low Offset Voltage:  $\pm$ 100  $\mu$ V max.
- Low Offset Drift: 0.5  $\mu$ V/ $^{\circ}$ C max.
- Supply Voltage: 2.2 to 26 V

### Benefits

- High-side current sensing for high voltage systems
- Low Ohm value current sense resistors
- High accuracy over temperature leading to better power efficiency
- Wide supply voltage range provides system flexibility

### Applications

- Power Monitoring
- Power Adapters
- LED Power Supply
- Over Current Protection
- Automotive

### End Products

- White Goods
- Automotive
- Lighting
- Laptop/Notebooks PC
- Fast Chargers in Smartphones and Tablets

## Part Electrical Specifications

Product	Compliance	Status	Channels	Gain (V/V)	Gain Error Max (%)	V <sub>s</sub> Min (V)	V <sub>s</sub> Max (V)	V <sub>CM</sub> (V)	I <sub>q</sub> Typ (mA)	Bandwidth Typ (-3dB)	V <sub>os</sub> Max (mV)	V <sub>os</sub> Drift Max (μV/°C)	Operating Temperature Range (°C)	CMRR Typ (dB)	Package Type
NCS214RMUTAG	Pb-free Halide free	Active	1	100	±1	2.2	26	-0.3 to 26	0.04	0.06	±0.06	0.5	-40 to 125	125	UQFN-10
NCS214RSQT2G	Pb-free Halide free	NEW	1	100	±1	2.2	26	-0.3 to 26	0.04	0.06	±0.06	0.5	-40 to 125	125	SC-88-6 / SC-70-6 / SOT-363-6
NCV214RSQT2G	AEC Qualified PPAP Capable Pb-free Halide free	NEW	1	100	±1.5	2.2	26	-0.3 to 26	0.04	0.06	±0.09	1.5	-40 to 125	135	SC-88-6 / SC-70-6 / SOT-363-6

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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