

NCS199A1R

Current-Shunt Monitors, 26V, Voltage Output, Bidirectional, Zero-Drift, Low- or High- Side Current Sensing



Product Overview

For complete documentation, see the [data sheet](#).

The NCS199A1R is a voltage output current shunt monitor (also called current sense amplifier) which can measure voltage across shunts at common-mode voltages from -0.3 to 26V, independent of supply voltage. The low offset of the zero-drift architecture enables current sensing across the shunt with maximum voltage drop as low as 10 mV full-scale. These devices can operate from a single +2.2 V to +26V power supply, drawing a maximum of 80µA of supply current, and are specified over the extended operating temperature range (-40°C to +125°C). Available in the SC70-6 package.

Similar Products:

	NCS199A1R	NCS199A2R	NCS199A3R
Gain (V/V)	50	100	200
Gain Error (%)	1.5	1.5	1.5
Bandwidth (kHz)	90	60	40
Offset Voltage (µV)	150	150	150

Features

- Wide common mode input range -0.3 V to 26 V
- Low offset voltage ± 150 µV Max
- Low Offset Drift: 0.5 µV/°C
- Supply voltage range from 2.2 V to 26 V

Applications

- Current Sensing (High-Side/Low-Side)
- Power Monitoring
- Power Adapters
- Feedback Control Loops



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

End Products

- Fast Chargers - Smartphones
- Telecom DC-DC Modules
- E-Cigarettes
- High End Computing/Servers
- Wireless Charging

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Channels	Gain (V/V)	Gain Error Max (%)	V_{δ} Min (V)	V_{δ} Max (V)	V_{CM} (V)	I_q Typ (mA)	Bandwidth Typ (-3dB)	V_{ps} Max (mV)	V_{os} Drift Max (μ V/ $^{\circ}$ C)	Operating Temperature Range ($^{\circ}$ C)	CMR R Typ (dB)	Package Type
NCS199A1RSQT2G	0.2428	 	Active	1	50	\pm 1.5	2.2	26	-0.3 to 26	0.04	0.09	0.15	0.5	-40 to 125	120	SC-88-6 / SC-70-6 / SOT-363-6