Product Overview

LMV931: Operational Amplifier, Low Power, Rail to Rail I/O, CMOS Op-Amp

For complete documentation, see the data sheet.

The LMV931 Single and LMV932 Dual are CMOS low-voltage op-amps which can operate on single-sided power supplies (1.8 V to 5.0 V) with rail-to-rail input and output swing. Both devices come in small state-of-the-art packages and require very low quiescent current making them ideal for battery-operated, portable applications such as notebook computers and hand-held instruments. Rail-to-Rail operation provides improved signal-to-noise performance plus the small packages allow for closer placement to signal sources thereby reducing noise pickup. The single LMV931 is offered in space saving SC70-5 package. The dual LMV932 is in a Micro8. These small packages are very beneficial for crowded PCBs. Further reduction of power consumption is available with the addition of a shutdown function in the LMV981 Single and LMV982 Dual. All other functions and performance are the same. Shutdown is implemented by driving the SHDN pin LOW.

Features

- Performance Specified on Single-sided Power Supply: 1.8, 2.7, 5 V
- Extended Industrial Temperature Range: -40°C to +125°C
- Low Quiescent Current 210μA, max per channel

Benefits

- Ideal for Battery-operated portable equipment
- Useable for higher-temp applications
- Extended battery life

Applications

- Reference Buffers
- Current Shunt Monitors

End Products

- PDAs
- Notebook Computers
- Battery-operated Portable Instruments

Part Electrical Specifications

Product	Pricing ($/Unit)	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/μs)	I_O Typ (mA)	$\Delta V_O/\Delta T$ (μV/C)	e_N (nV/√Hz)	I_{bias} Typ (pA)	CMRR Typ (dB)	Architecture	Temperature Range (°C)	Package Type
LMV931SN3T1G	0.2588	Pb-free Halide free	Active	Input/Output	1	1.8	5	0.075	6	1.4	0.48	80	5.5	50	1	70	CMOS	-40 to 125	TSOP-5 / SOT-23-5
LMV931SQ3T2G	0.244	Pb-free Halide free	Active	Input/Output	1	1.8	5	0.075	6	1.4	0.48	80	5.5	50	1	70	CMOS	-40 to 125	SC-88A / SC-70-5

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