

## Product Overview

### NE5532: Operational Amplifier, Low Noise, Dual

For complete documentation, see the data sheet.

The 5532 is a dual high-performance low noise op-amp. Compared to most of the standard operational amplifiers, such as the 1458, it shows better noise performance, improved output drive capability and considerably higher small-signal and power bandwidths. This makes the device especially suitable for application in high-quality and professional audio equipment, instrumentation and control circuits, and telephone channel amplifiers. The op amp is internally compensated for gains equal to one. If very low noise is of prime importance, it is recommended that the 5532A version be used because it has guaranteed noise voltage specifications.

### Features

- Small-Signal Bandwidth: 10 MHz
- Output Drive Capability: 600  $\Omega$ , 10 VRMS
- Input Noise Voltage: 5.0 nV/(Hz)<sup>0.5</sup> (Typical)
- DC Voltage Gain: 50000
- AC Voltage Gain: 2200 at 10 kHz
- Power Bandwidth: 140 kHz
- Slew Rate: 9.0 V/ $\mu$ s
- Large Supply Voltage Range:  $\pm$ 3.0 to  $\pm$ 20 V
- Compensated for Unity Gain

### Applications

- Instrumentation and Control Circuits
- Telephone Channel Amplifiers

### End Products

- High End Audio Equipment

## Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Rail to Rail	Channels	V <sub>S</sub> Min (V)	V <sub>S</sub> Max (V)	I <sub>q</sub> Typ (mA)	V <sub>OS</sub> Max (mV)	GBW Typ (MHz)	SR Typ (V/μs)	I <sub>O</sub> Typ (mA)	ΔV <sub>OS</sub> /ΔT (μV/C)	e <sub>N</sub> (nV/√Hz)	I <sub>bias</sub> Typ (pA)	CMRR Typ (dB)	Architecture	Temperature Range (°C)	Package Type
NE5532AD8G	0.6501	AEC Qualified Pb-free Halide free non AEC-Q and PPAP	Active	No	2	3	20	4	2	10	9	38	5	5	30000	100	Bipolar	-40 to 85	SOIC-8
NE5532AD8R2G	0.468	AEC Qualified Pb-free Halide free non AEC-Q and PPAP	Active	No	2	3	20	4	2	10	9	38	5	5	30000	100	Bipolar	-40 to 85	SOIC-8
NE5532D8G	0.735	Pb-free Halide free non AEC-Q and PPAP	Active	No	2	3	20	4	2	10	9	38	5	5	30000	100	Bipolar	-40 to 85	SOIC-8
NE5532D8R2G	0.6992	Pb-free Halide free non AEC-Q and PPAP	Active	No	2	3	20	4	2	10	9	38	5	5	30000	100	Bipolar	-40 to 85	SOIC-8
NE5532DR2G	0.4848	Pb-free Halide free non AEC-Q and PPAP	Active	No	2	3	20	4	2	10	9	38	5	5	30000	100	Bipolar	-40 to 85	SOIC-16W
SE5532AD8G	0.8846	AEC Qualified Pb-free Halide free non AEC-Q and PPAP	Active	No	2	3	20	4	2	10	9	38	5	5	30000	100	Bipolar	-40 to 85	SOIC-8
SE5532AD8R2G	0.6998	Pb-free Halide free non AEC-Q and PPAP	Active	No	2	3	20	4	2	10	9	38	5	5	30000	100	Bipolar	-40 to 85	SOIC-8

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