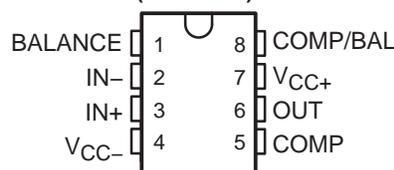


NE5534, NE5534A, SA5534. SA5534A LOW-NOISE OPERATIONAL AMPLIFIERS

SLOS070C – JULY 1979 – REVISED SEPTEMBER 2004

- Equivalent Input Noise Voltage . . .
3.5 nV/ $\sqrt{\text{Hz}}$ Typ
- Unity-Gain Bandwidth . . . 10 MHz Typ
- Common-Mode Rejection Ratio . . .
100 dB Typ
- High DC Voltage Gain . . . 100 V/mV Typ
- Peak-to-Peak Output Voltage Swing
32 V Typ With $V_{CC\pm} = \pm 18 \text{ V}$ and $R_L = 600 \Omega$
- High Slew Rate . . . 13 V/ μs Typ
- Wide Supply-Voltage Range $\pm 3 \text{ V}$ to $\pm 20 \text{ V}$
- Low Harmonic Distortion
- Offset Nulling Capability
- External Compensation Capability

NE5534, SA5534 . . . D (SOIC), P (PDIP),
OR PS (SOP) PACKAGE
NE5534A, SA5534A . . . D (SOIC) OR P (PDIP) PACKAGE
(TOP VIEW)



description/ordering information

The NE5534, NE5534A, SA5534, and SA5534A are high-performance operational amplifiers combining excellent dc and ac characteristics. Some of the features include very low noise, high output-drive capability, high unity-gain and maximum-output-swing bandwidths, low distortion, and high slew rate.

These operational amplifiers are compensated internally for a gain equal to or greater than three. Optimization of the frequency response for various applications can be obtained by use of an external compensation capacitor between COMP and COMP/BAL. The devices feature input-protection diodes, output short-circuit protection, and offset-voltage nulling capability with use of the BALANCE and COMP/BAL pins (see the *application circuit* diagram).

For the NE5534A and SA5534A, a maximum limit is specified for the equivalent input noise voltage.



Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.

PRODUCTION DATA information is current as of publication date. Products conform to specifications per the terms of Texas Instruments standard warranty. Production processing does not necessarily include testing of all parameters.

 **TEXAS
INSTRUMENTS**

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NE5534, NE5534A, SA5534. SA5534A LOW-NOISE OPERATIONAL AMPLIFIERS

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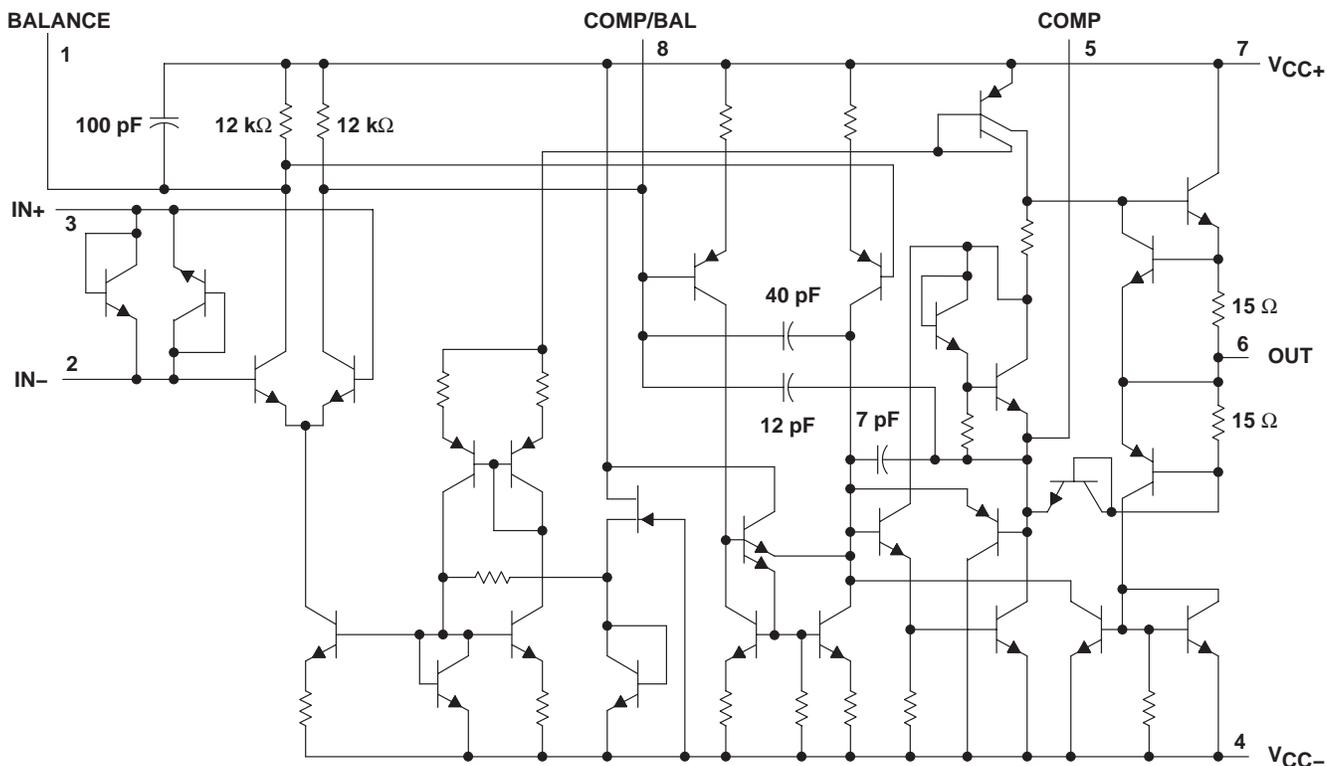
description/ordering information (continued)

ORDERING INFORMATION

TA	V _{IO} max AT 25°C	PACKAGE†	ORDERABLE PART NUMBER	TOP-SIDE MARKING	
0°C to 70°C	4 mV	PDIP (P)	Tube of 50	NE5534P	NE5534P
			Tube of 50	NE5534AP	NE5534AP
		SOIC (D)	Tube of 75	NE5534D	NE5534
			Reel of 2500	NE5534DR	
			Tube of 75	NE5534AD	5534A
			Reel of 2500	NE5534ADR	
SOP (PS)	Reel of 2000	NE5534PSR	N5534		
-40°C to 85°C	4 mV	PDIP (P)	Tube of 50	SA5534P	SA5534P
			Tube of 50	SA5534AP	SA5534AP
		SOIC (D)	Tube of 75	SA5534D	SA5534
			Reel of 2500	SA5534DR	
			Tube of 75	SA5534AD	SA5534A
			Reel of 2500	SA5534ADR	
		SOP (PS)	Tube of 80	SA5534PS	SA5534
			Reel of 2000	SA5534PSR	

† Package drawings, standard packing quantities, thermal data, symbolization, and PCB design guidelines are available at www.ti.com/sc/package.

schematic



All component values shown are nominal.



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