

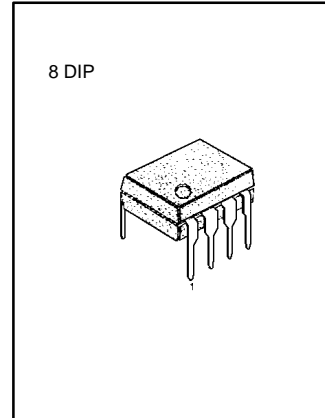
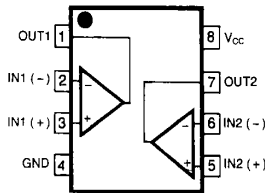
DUAL OPERATIONAL AMPLIFIERS

The NE5532 is an internally compensated dual low noise op AMP. The high small signal and power bandwidths provides superior performance in high quality AMP, all control circuits, and telephone applications.

FEATURE

- Internal frequency compensation
- Slew Rate: 8V/μs
- Input noise voltage: $8nV/\sqrt{Hz}$ ($f_0 = 30Hz$)
- Full power bandwidth: 140KHz

BLOCK DIAGRAM



ORDERING INFORMATION

Device	Package	Operating Temperature
NE5532 (KA5532)	8 DIP	0 ~ + 70 °C

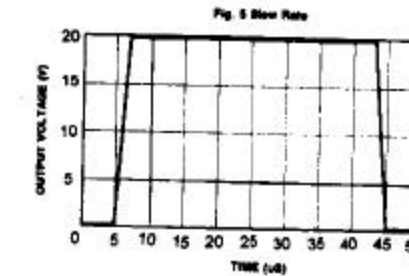
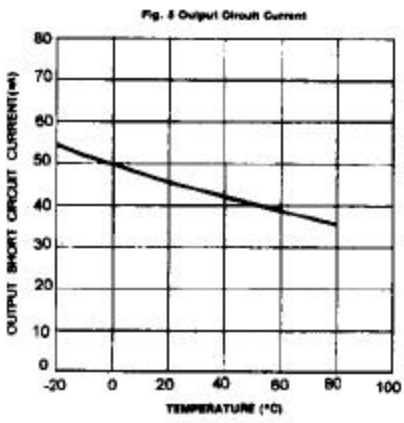
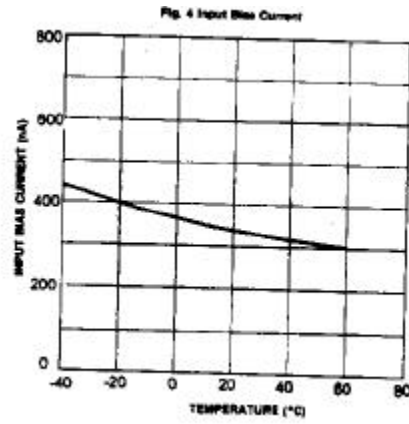
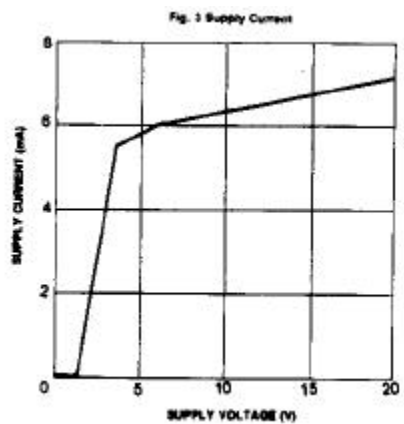
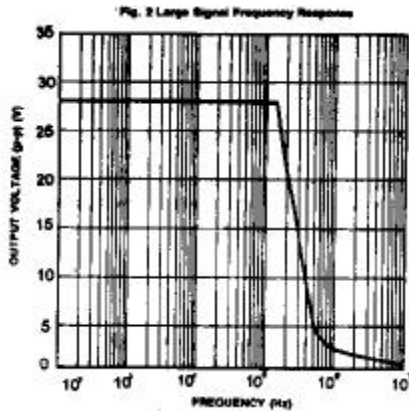
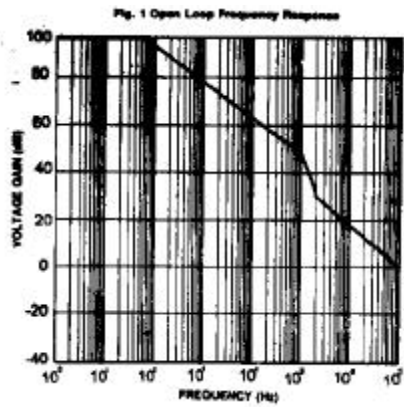
ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$)

Characteristics	Symbol	NE5532	Unit
Power Supply Voltage	V_{CC}	± 22	V
Differential Input Voltage	V_{IO}	13	V
Input Voltage	V_I	Supply Voltage	V
Power Dissipation	P_D	1000	mW
Operating Temperature Range	T_{OPR}	0 ~ + 70	°C

ELECTRICAL CHARACTERISTICS ($V_{CC} = -5V, V_{EE} = -15V, T_A = 25^\circ C$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Offset Voltage	V_{IO}			0.5	4.0	mV
Input Offset Current	I_{IO}			10	150	nA
Input Bias Current	I_{BIAS}			200	800	nA
Supply Current	I_{CC}			6.0	16	mA
Input Voltage Range	$V_{I(R)}$		± 12	± 13		V
Common Mode Rejection Range	CMRR	$T_A = 25^\circ C$	70	100		dB
Power Supply Rejection Ratio	PSRR	$T_A = 25^\circ C$	80	100		dB
Output Voltage Swing	$V_{O(P,P)}$	$R_L \geq 600\Omega$	± 12	± 13		V
Input Resistance	R_I	$T_A = 25^\circ C$	30	300		KΩ
Short Circuit Current	I_{SC}			38		mA
Overshoot	O_S	$R_L = 600\Omega, C_L = 100pF$		10	20	%
Gain	G_V	$f = 10KHz$	2	2.2		V/mV
Gain Bandwidth Product	GBW	$C_L = 100pF, R_L = 600\Omega$	8	10		MHz
Slew Rate	SR	$R_L = 1K, C_L = 100pF, R_L = 600\Omega$	6	8.0		V/μs
Input Noise Voltage	V_{NI}	$f_0 = 30Hz$ $f_0 = 1KHz$		8.0 5.0		nV/√Hz

TYPICAL PERFORMANCE CHARACTERISTICS



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FACT Quiet Series™	QS™	
FAST®	Quiet Series™	
FAST _r ™	SuperSOT™-3	
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Definition of Terms

Datasheet Identification	Product Status	Definition
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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