

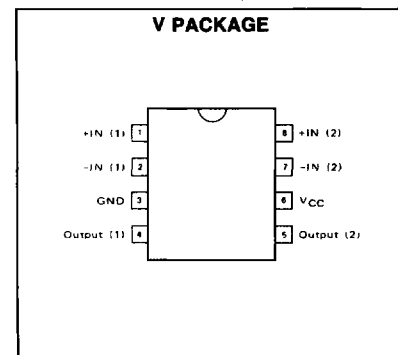
FEATURES

- LOW NOISE— $7\mu\text{V}$ TOTAL INPUT NOISE
- HIGH GAIN—104dB OPEN LOOP
- SINGLE SUPPLY OPERATION
- WIDE SUPPLY RANGE 9 TO 24V
- POWER SUPPLY REJECTION 110dB
- LARGE OUTPUT VOLTAGE SWING ($V_{CC} - 2\text{V p-p}$)
- WIDE BANDWIDTH 15MHz UNITY GAIN
- POWER BANDWIDTH 100kHz (15V p-p)
- INTERNALLY COMPENSATED (STABLE AT 10dB)
- SHORT CIRCUIT PROTECTED
- HIGH SLEW RATE $5\text{V}/\mu\text{s}$

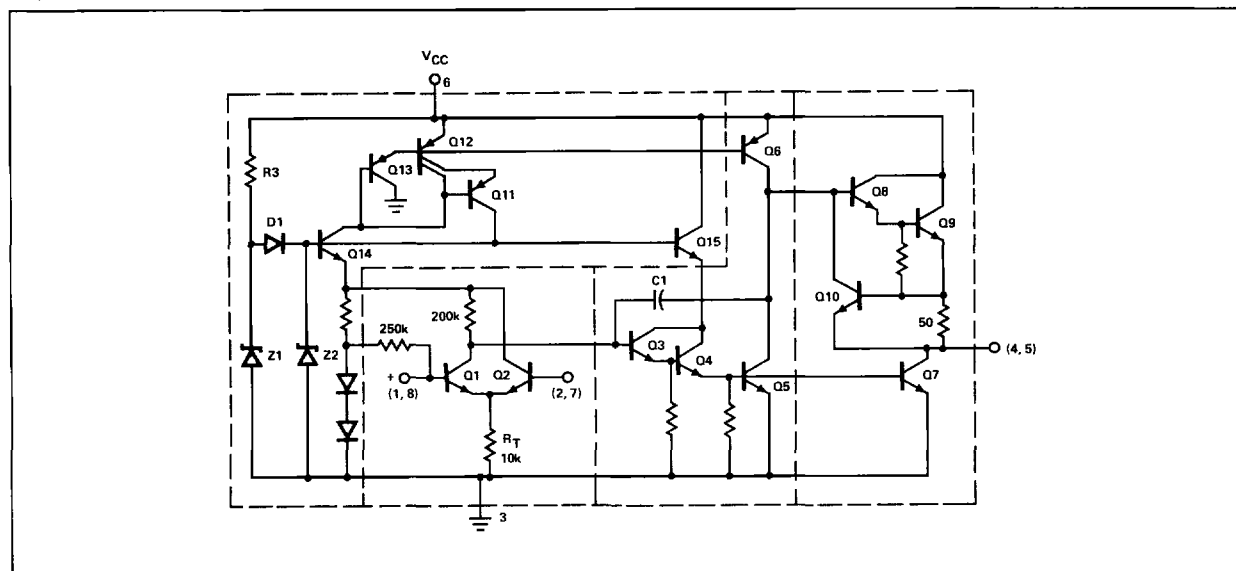
ABSOLUTE MAXIMUM RATINGS

Supply Voltage	+24V
Power Dissipation	500mW
Operating Temperature Range	0°C to $+70^\circ\text{C}$
Storage Temperature Range	-65°C to $+150^\circ\text{C}$
Lead Temperature (Soldering, 60 sec)	$+300^\circ\text{C}$

PIN CONFIGURATION



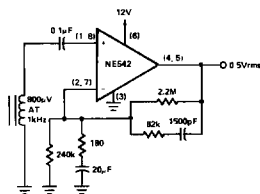
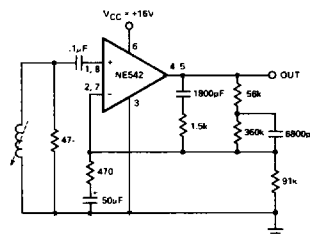
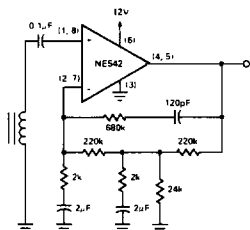
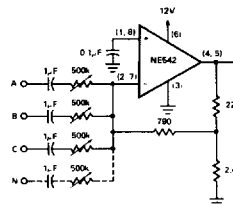
EQUIVALENT CIRCUIT



ANALOG

ELECTRICAL CHARACTERISTICS $T_A = +25^\circ\text{C}$, $V_{CC} = 14\text{V}$ (Unless Otherwise Noted)

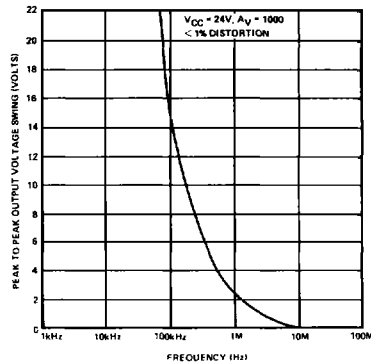
PARAMETER	TEST CONDITIONS	LIMITS			UNITS
		MIN	TYP	MAX	
Supply Voltage	$V_{CC} = 9$ to 18V , $R_L = \infty$ Open Loop	9		24	V
Supply Current			9	12	mA
Voltage Gain			160,000		V/V
Input Resistance	Open Loop		100k		Ω
Positive Input			200k		Ω
Negative Input					
Input Current	Open Loop		.5		μA
Negative Input			150		Ω
Output Resistance			14		mA
Output Current	Source Sink (Linear Operation)	8	3		mA
		$V_{CC} - 2.5$	$V_{CC} - 2$		V
Output Voltage Swing			15		MHz
Small Signal Bandwidth	15V p-p Linear Operation		5		V/ μs
Slew Rate			100		kHz
Power Bandwidth				300	mV rms
Maximum Input Voltage	$f = 60, 120\text{Hz}$		100		dB
Supply Rejection Ratio			110		dB
			70		dB
Channel Separation	75dB Gain, $f = 1\text{kHz}$		.1		%
Total Harmonic Distortion					
Total Equivalent Input Noise			.7	1.2	$\mu\text{V rms}$
Noise Figure	$R_S = 600\Omega$, 10-10,000 Hz		1.2		dB
	$R_S = 50k\Omega$, 10-10,000 Hz		1.2		dB
	$R_S = 20k\Omega$, 10-10,000 Hz		1.2		dB
	$R_S = 10k\Omega$, 10-10,000 Hz		1.5		dB
	$R_S = 5k\Omega$, 10-10,000 Hz		2.4		dB

TYPICAL APPLICATIONS**TYPICAL TAPE PLAYBACK AMPLIFIER****R1AA MAGNETIC PHONO PREAMP****TWO-POLE FAST TURN-ON NAB TAPE PREAMP****AUDIO MIXER**

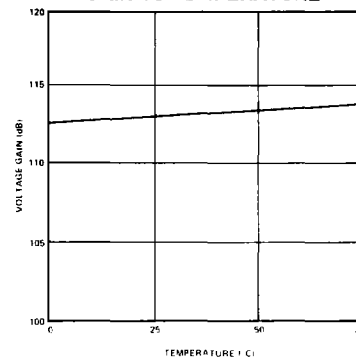
NOTE: ALL RESISTORS VALUES ARE TYPICAL AND IN OHMS.

TYPICAL CHARACTERISTICS

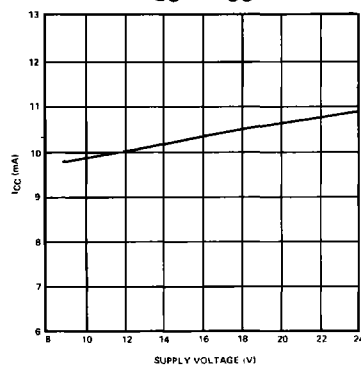
LARGE SIGNAL FREQUENCY RESPONSE



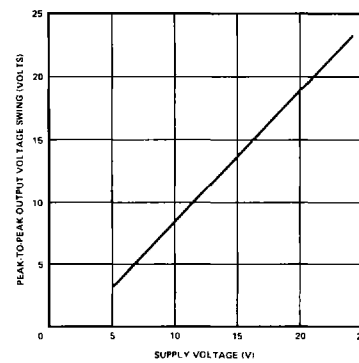
GAIN VS TEMPERATURE



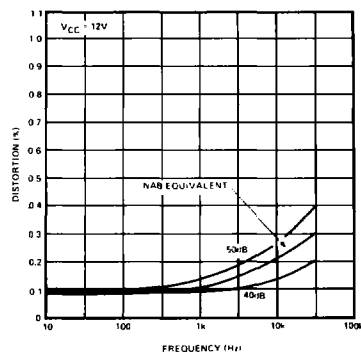
VCC VS ICC



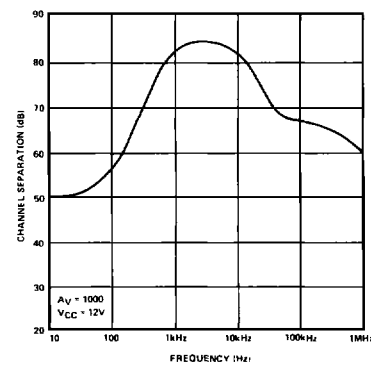
P-P OUTPUT VOLTAGE SWING VS VCC



% DISTORTION



CHANNEL SEPARATION



TYPICAL CHARACTERISTICS (Continued)

