

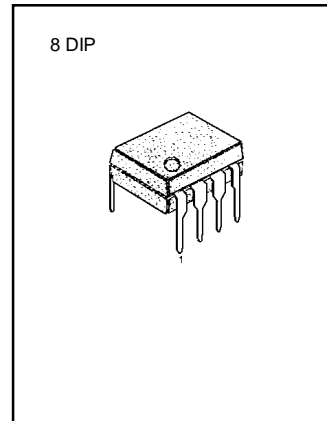
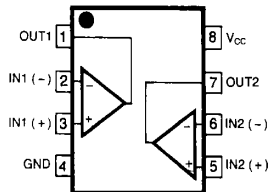
DUAL OPERATIONAL AMPLIFIERS

The KA5532 is an internally compensated dual low noise OP Amp. The high small signal and power bandwidth provides superior performance in high quality Amp, all control circuits, and telephone applications.

FEATURE

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

BLOCK DIAGRAM



ORDERING INFORMATION

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

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

Characteristic	Symbol	KA5532	Unit
Power Supply Voltage	V_{CC}	± 22	V
Differential Input Voltage	V_{IO}	± 0.5	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		K Ω
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}	$f_o = 30Hz$ $f_o = 1KHz$		8.0 5.0		nV/ \sqrt{Hz}

TYPICAL PERFORMANCE CHARACTERISTICS

Fig. 1 Open Loop Frequency Response

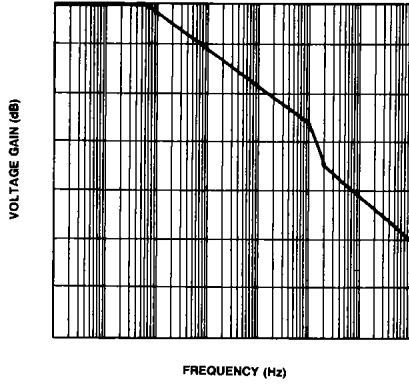


Fig. 2 Large Signal Frequency Response

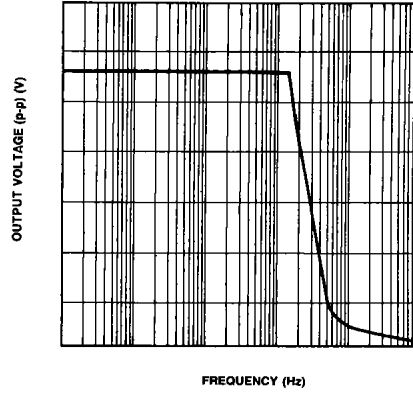


Fig. 3 Supply Current

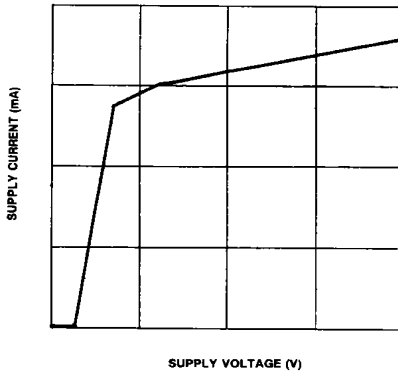


Fig. 4 Input Bias Current

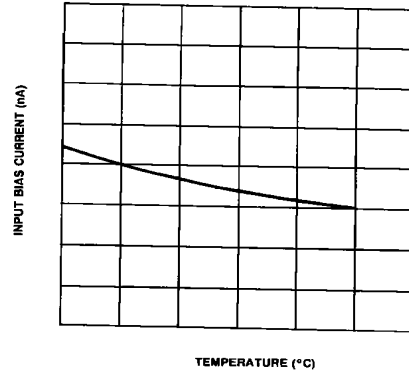


Fig. 5 Output Circuit Current

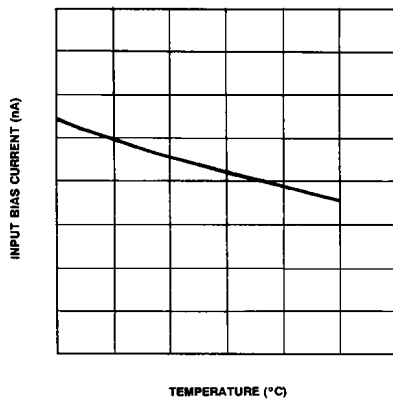
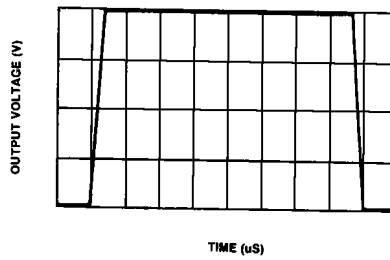


Fig. 5 Slew Rate



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