

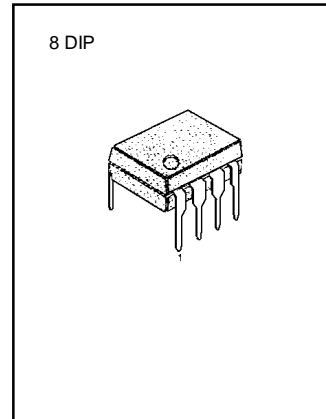
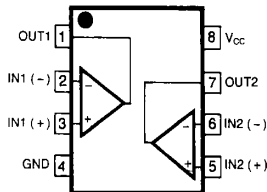
DUAL OPERATIONAL AMPLIFIERS

The KA5532 is a 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

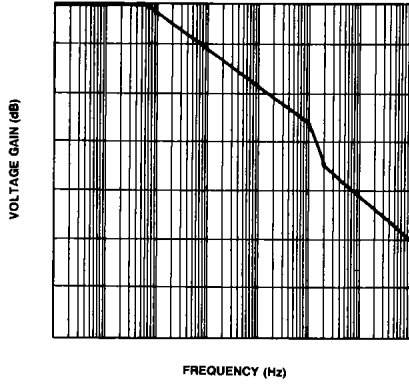


Fig. 2 Large Signal Frequency Response

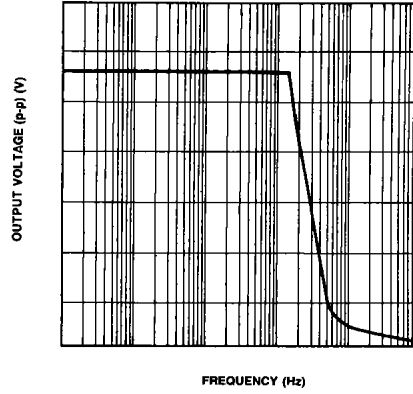


Fig. 3 Supply Current

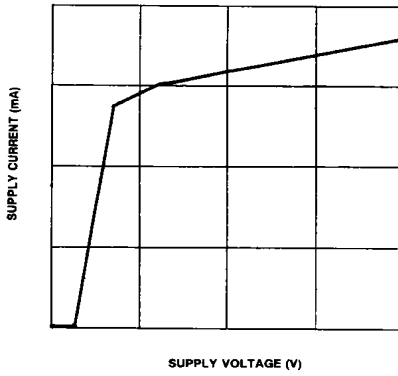


Fig. 4 Input Bias Current

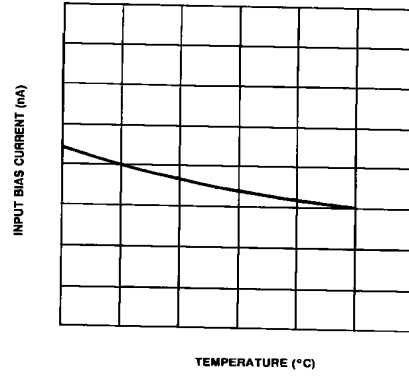


Fig. 5 Output Circuit Current

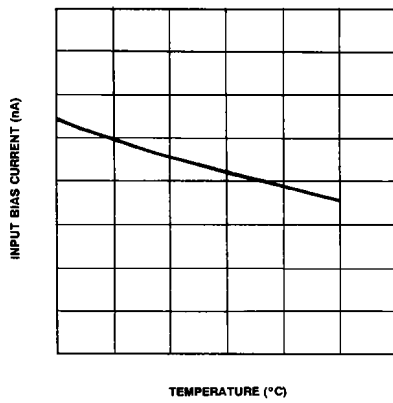
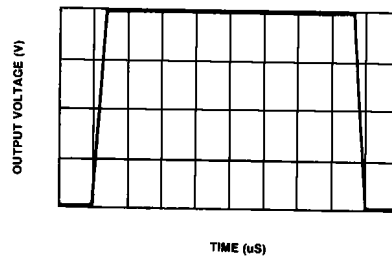
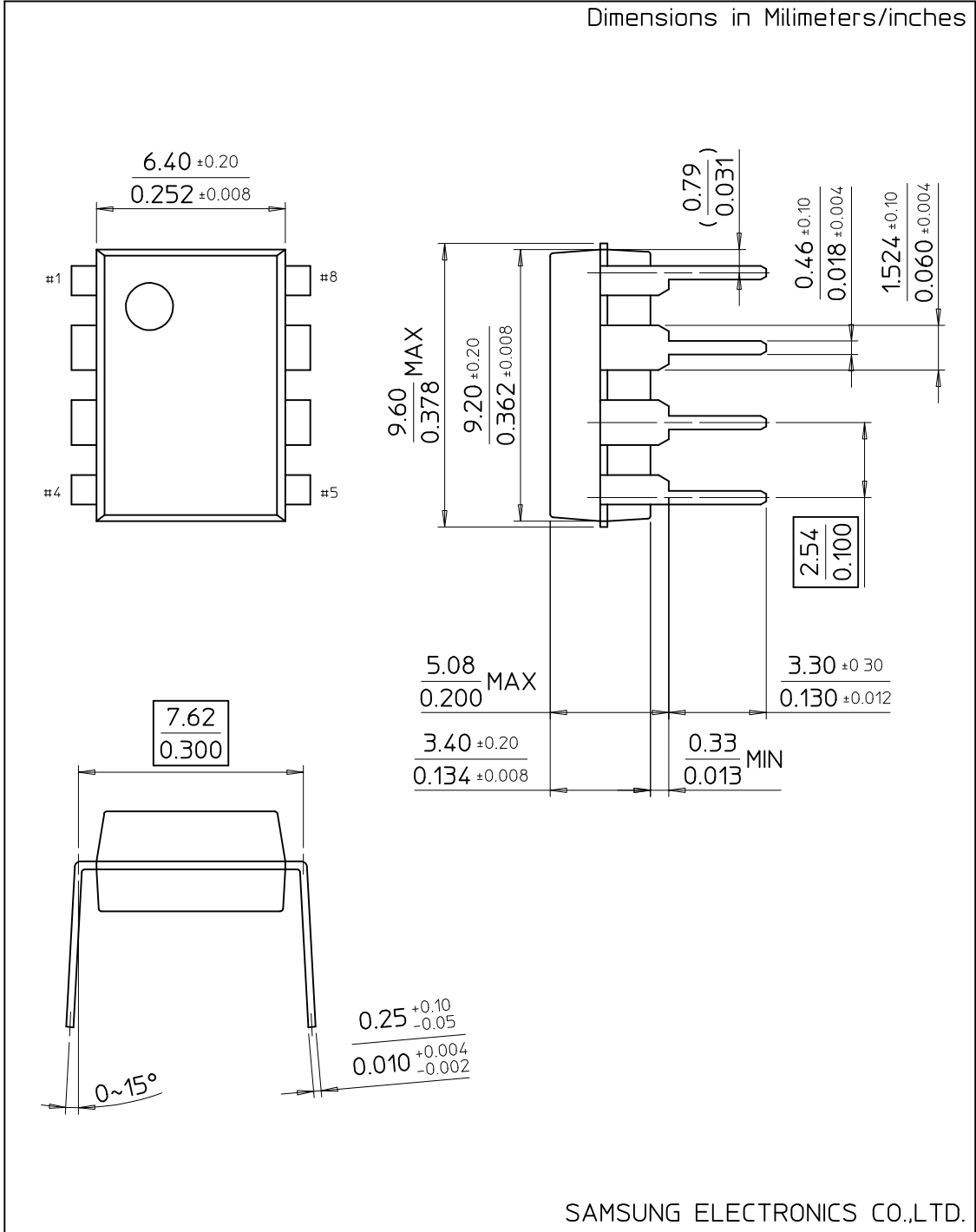


Fig. 5 Slew Rate



8-DIP-300

Dimensions in Millimeters/inches



SAMSUNG ELECTRONICS CO.,LTD.