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# KA5532

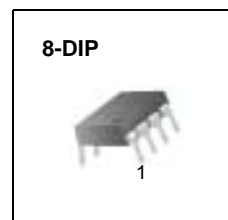
## Dual Operational Amplifier

### Features

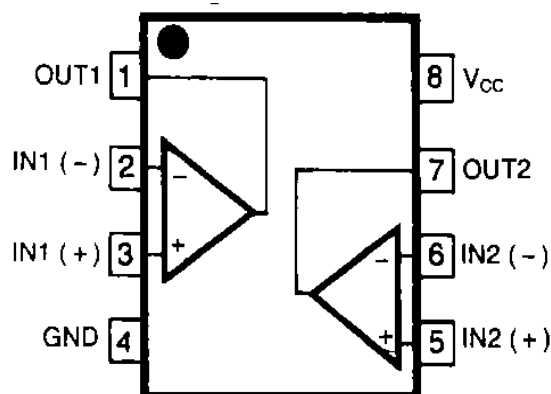
- Internal Frequency Compensation
- Slew Rate: 8V/μs
- Input Noise Voltage: 8nV/√Hz (fo = 30Hz)
- Full Power Bandwidth: 140KHz

### Description

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.



### Internal Block Diagram



KA5532

## Absolute Maximum Ratings

Parameter	Symbol	KA5532	Unit
Power Supply Voltage	VCC	±22	V
Differential Input Voltage	V(DIFF)	±13	V
Input Voltage	VI	Supply Voltage	V
Power Dissipation, TA = 25°C 8-DIP	PD	1100	mW
Operating Temperature Range	TOPR	0 ~ +70	°C

## Thermal Data

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-Ambient Max. 8-DIP	Rθja	110	°C/W

## Electrical Characteristics

(VCC = 15V, VEE = -15V, TA = 25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Input Offset Voltage	VIO	-	-	0.5	4.0	mV
Input Offset Current	IIO	-	-	10	150	nA
Input Bias Current	IBIAS	-	-	200	800	nA
Supply Current	ICC	-	-	6.0	16	mA
Input Voltage Range	VI(R)	-	±12	±13	-	V
Common Mode Rejection Range	CMRR	TA = 25°C	70	100	-	dB
Power Supply Rejection Ratio	PSRR	TA = 25°C	80	100	-	dB
Output Voltage Swing	VO(P-P)	RL ≥ 600Ω	±12	±13	-	V
Input Resistance	RI	TA = 25°C	30	300	-	KΩ
Short Circuit Current	ISC	-	-	38	-	mA
Overshoot	OS	RL = 600Ω, CL = 100pF	-	10	20	%
Voltage Gain	GV	f = 10KHz	2	2.2	-	V/mV
Gain Bandwidth Product	GBW	CL = 100pF, RL = 600Ω	8	10	-	MHz
Slew Rate	SR	RL = 1K, CL = 100pF, RL = 600Ω	6	8.0	-	V/μs
Input Noise Voltage	eN	fO = 30Hz fO = 1KHz	-	8.0 5.0	-	nV/√Hz

## Typical Performance Characteristics

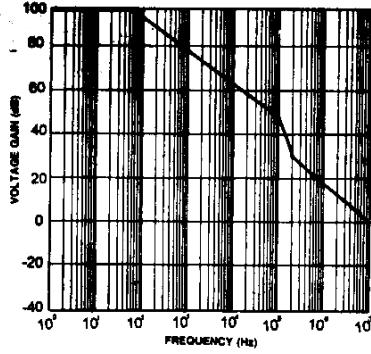


Figure 1. Open Loop Frequency Response

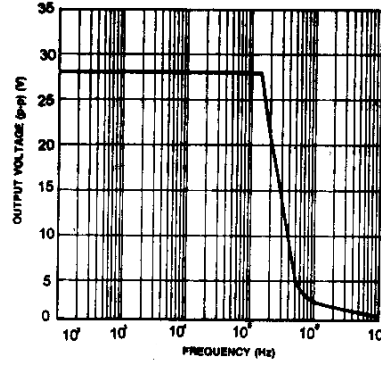


Figure 2. Large Signal Frequency Response

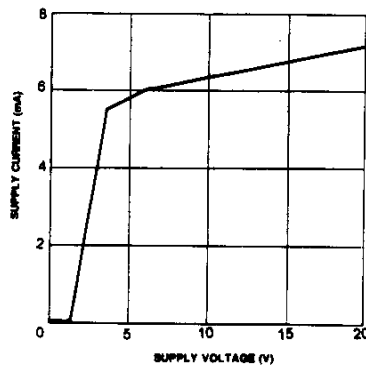


Figure 3. Supply Current vs Supply Voltage

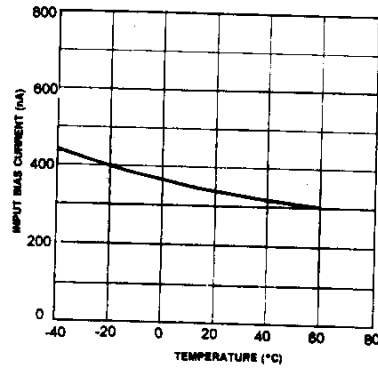


Figure 4. Input Bias Current vs Temperature

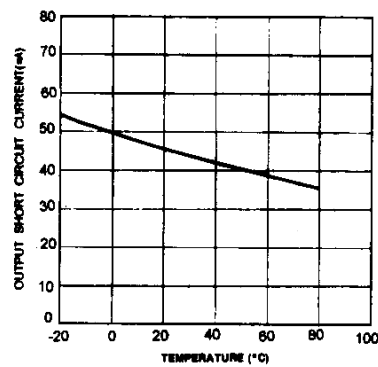


Figure 5. Output Circuit Current vs Temperature

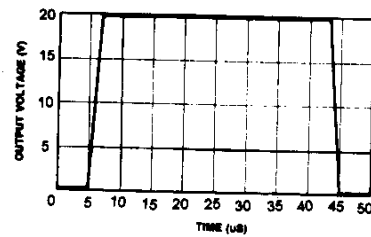


Figure 6. Slew Rate

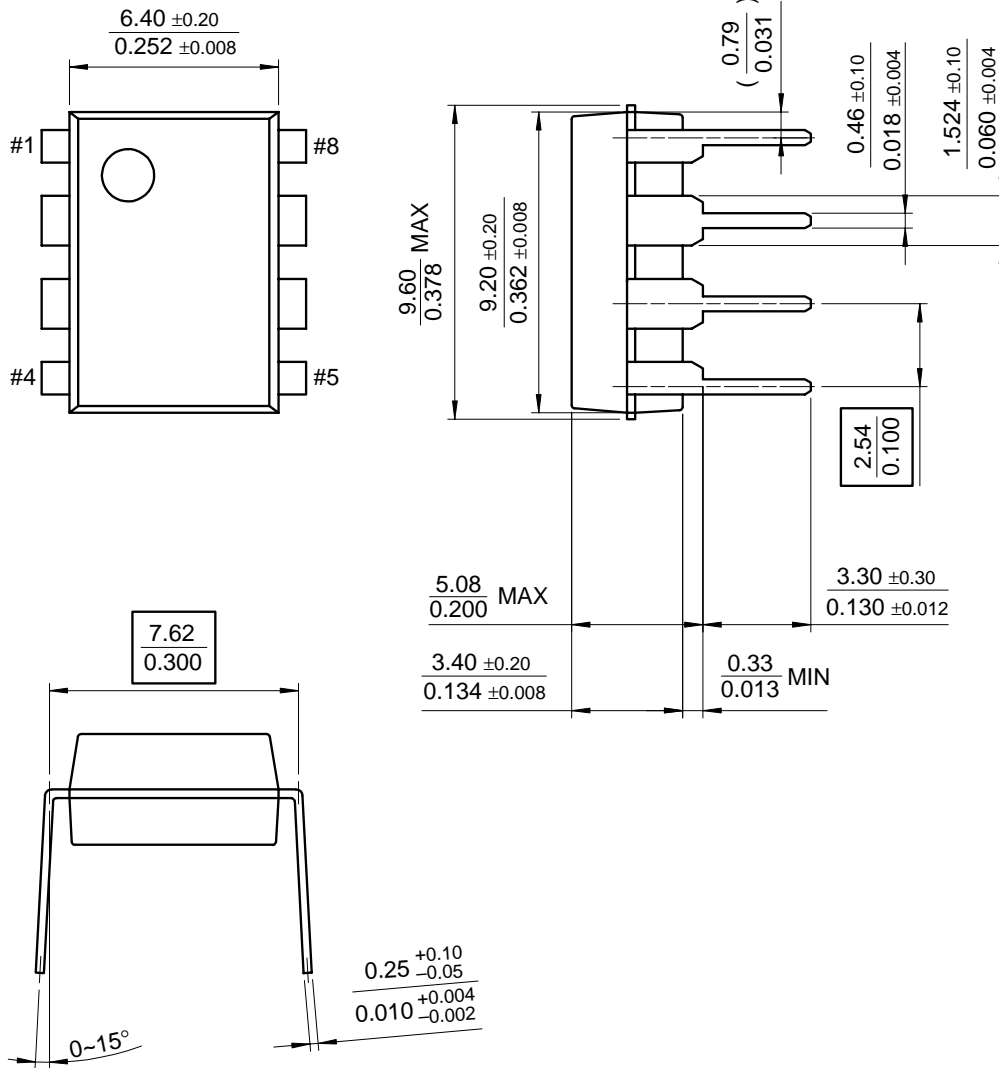
KA5532

## Mechanical Dimensions

### Package

Dimensions in millimeters

### 8-DIP



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## Ordering Information

Product Number	Package	Operating Temperature
KA5532	8-DIP	0 ~ + 70°C

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