

# KA1222

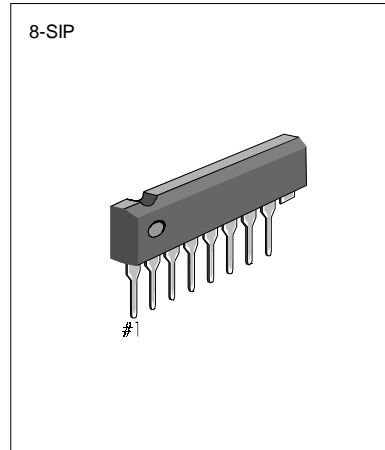
# DUAL LOW NOISE EQUALIZER AMPLIFIER

## INTRODUCTION

The KA1222 is a monolithic integrated circuit consisting of a 2-channel pre-amplifier in a 8-pin plastic single in line package minimum operating voltage is 2.5 volts, thus it is suitable for low voltage application.

## FEATURES

- Wide operating supply voltage : $V_{DD}=2.5V-6V$
- Low noise ( $V_{HI}=1.0\mu V$ :Typ).
- High channel separation.
- Good ripple rejection ratio.
- Minimum number of external parts required.



## ORDERING INFORMATION

Device	Package	Operating Temperature
KA1222	8-SIP	-20°C ~+70°C

## BLOCK DIAGRAM

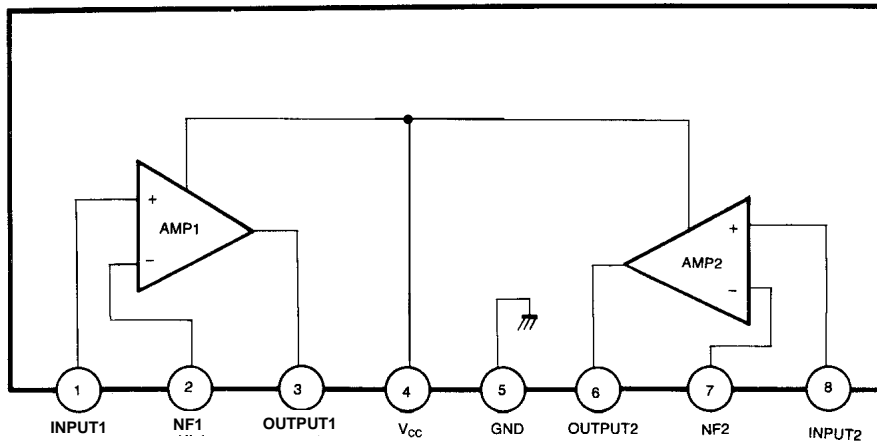


Fig. 1

# KA1222

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## ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristic	Symbol	value	Unit
Supply Voltage	V <sub>CC</sub>	7.5	V
Power Dissipation	P <sub>O</sub>	200	mW
Operating Temperature	T <sub>OPR</sub>	-20 ~ +70	°C
Storage Temperature	T <sub>STG</sub>	-40 ~ +125	°C

## ELECTRICAL CHARACTERISTICS

(T = 25°C V<sub>CC</sub> = 4V, R<sub>L</sub> = 10KΩ, R<sub>G</sub>=600Ω f = 1KHz, NAB unless otherwise specified)

Characteristic	Symbol	Teat Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current	I <sub>CCQ</sub>	V <sub>I</sub> = 0		2.0	6.0	mA
Open Loop Voltage Gain	G <sub>VO</sub>		65	80		dB
Closed Loop Voltage Gain	G <sub>VE</sub>	V <sub>O</sub> = 0.2V	33	35	37	dB
Output Voltage	V <sub>O</sub>	THD = 1%	0.4	0.7		V
Total Harmonic Distortion	THD	V <sub>O</sub> = 0.2V		0.1	0.3	%
Input Resistance	R <sub>I</sub>			150		KΩ
Equivalent Input Noise Voltage	V <sub>NI</sub>	R <sub>G</sub> = 2.2KΩ BW (-3dB)=15Hz ~ 30KHz		1.0	2.0	V
Cross Talk	CT	R <sub>G</sub> = 2.2KΩ	50	65		dB

## TEST CIRCUIT

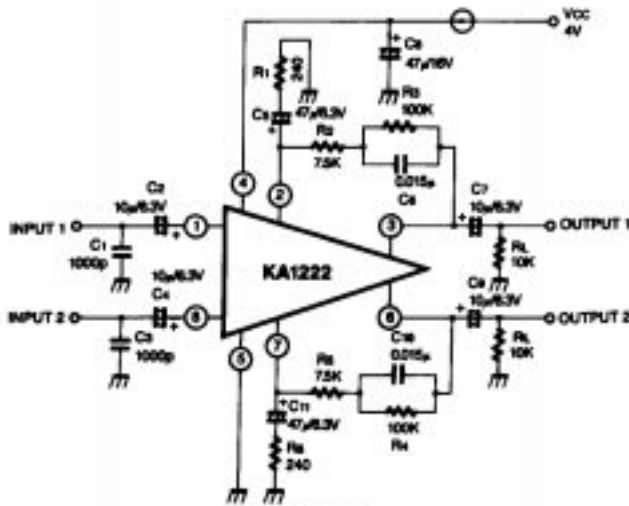
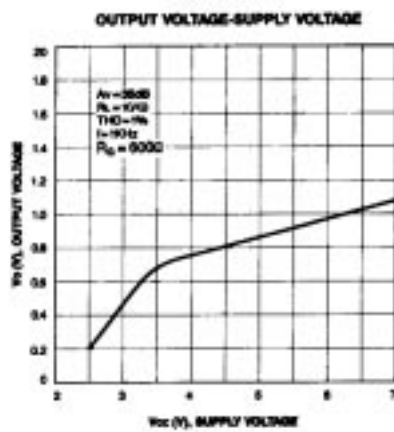
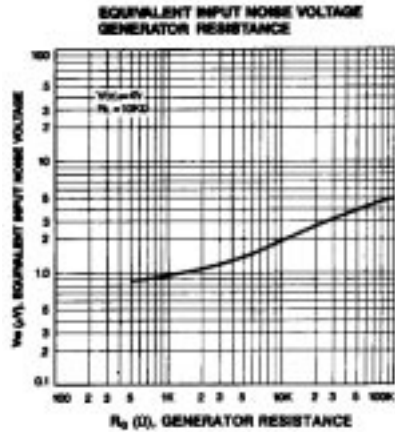
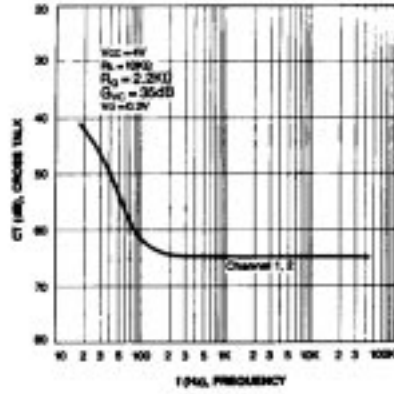
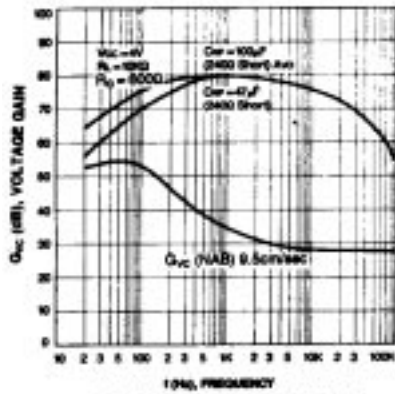
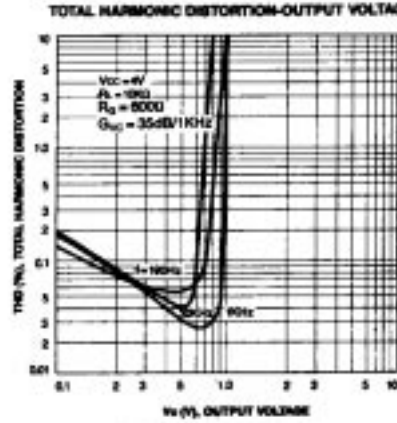
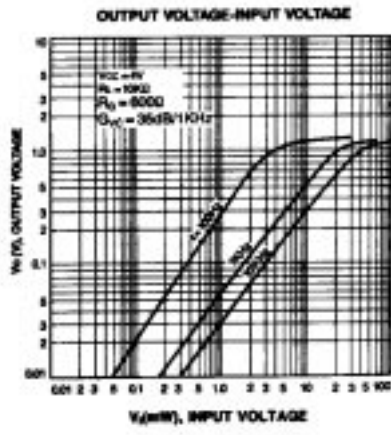
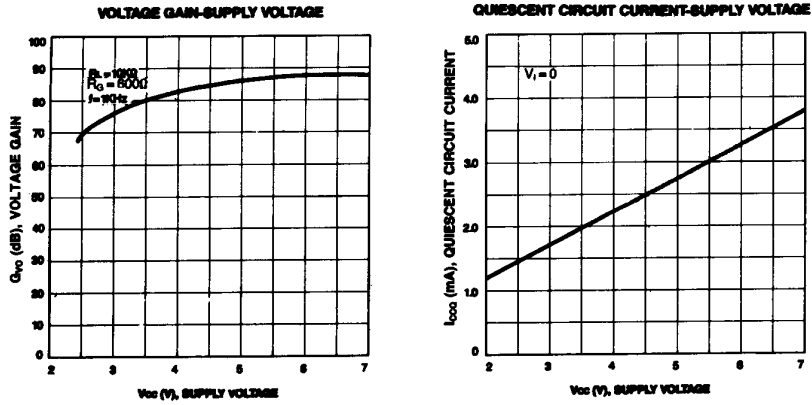


Fig. 2



KA1222

DUAL LOW NOISE EQUALIZER AMPLIFIER



APPLICATION CIRCUIT

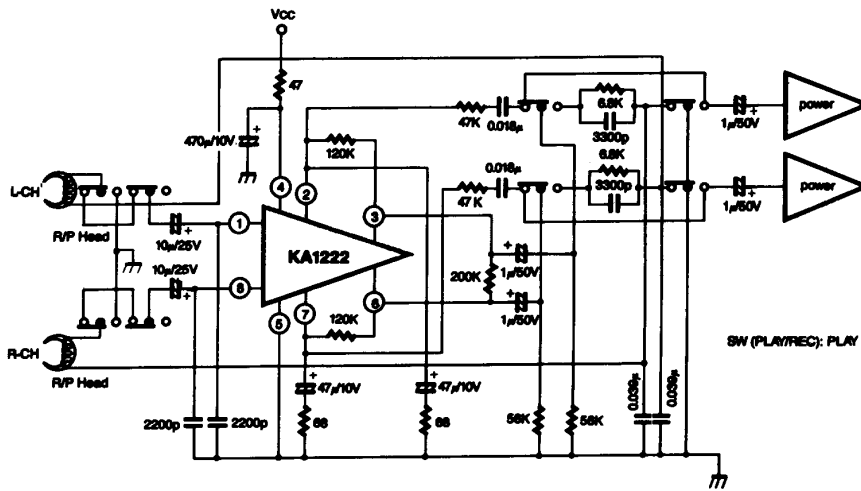
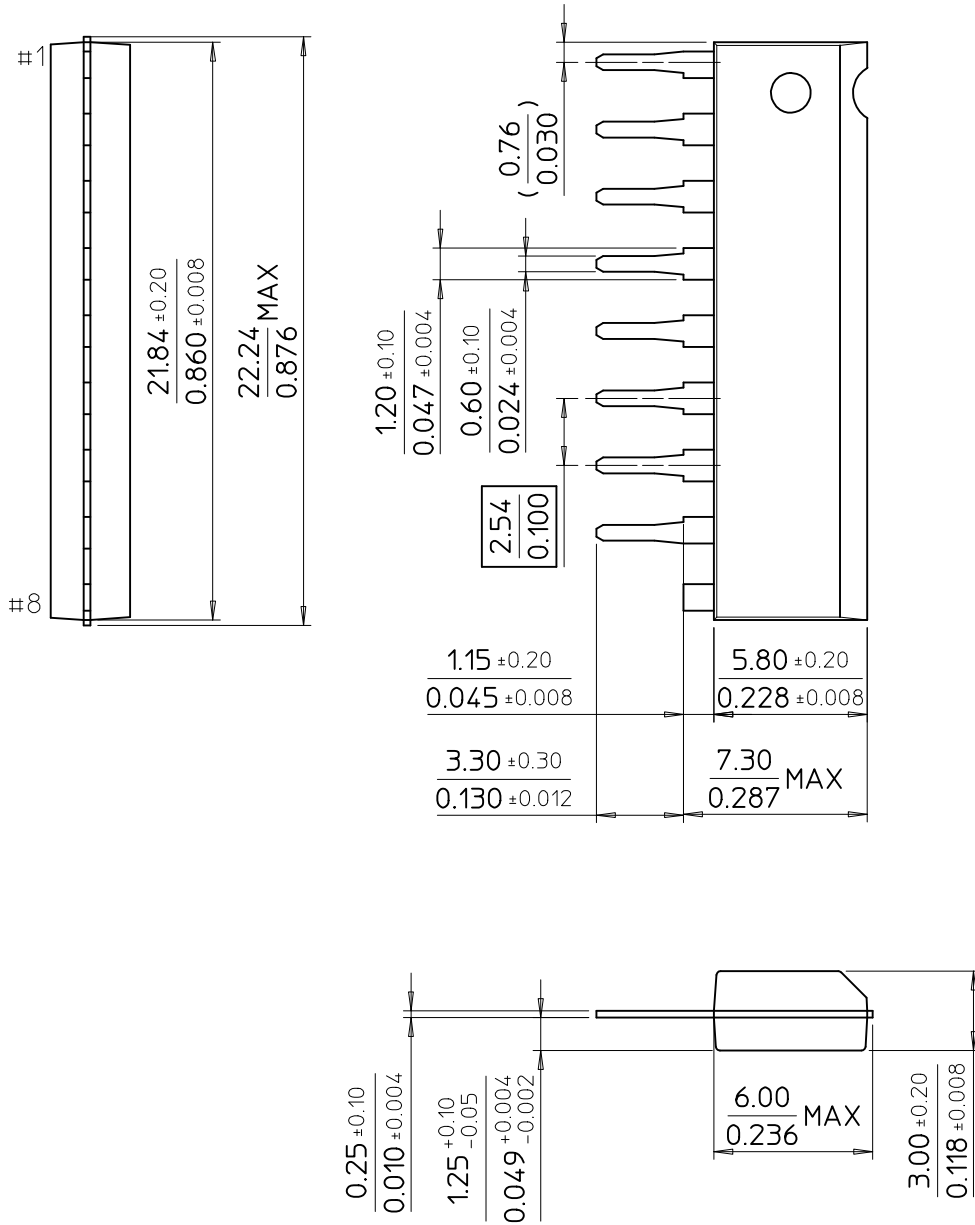


Fig. 3

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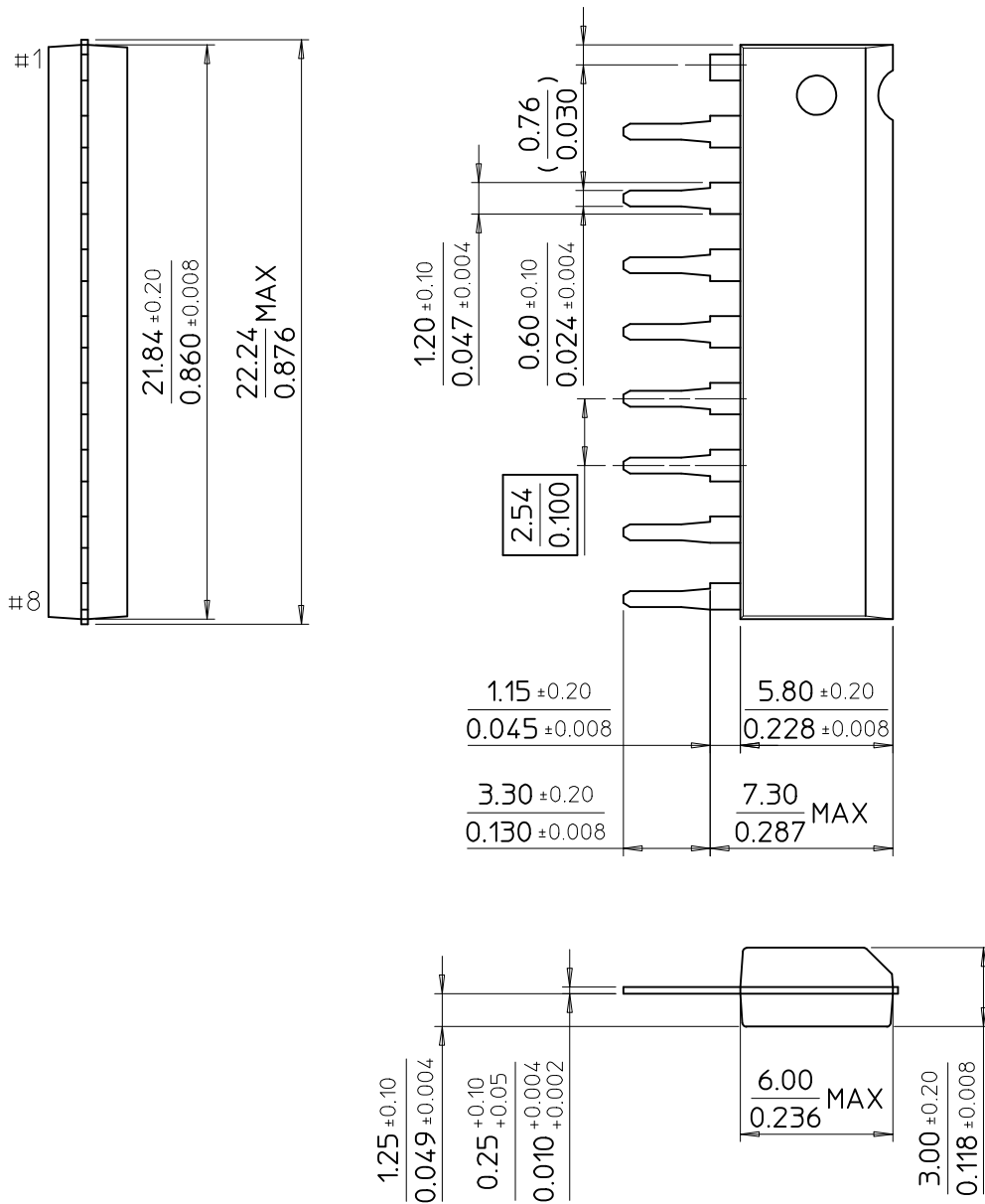
Dimensions in Milimeters/Inches



SAMSUNG ELECTRONICS CO.,LTD.

# 9(8)-SIP-B

Dimensions in Milimeters/Inches



SAMSUNG ELECTRONICS CO.,LTD.