

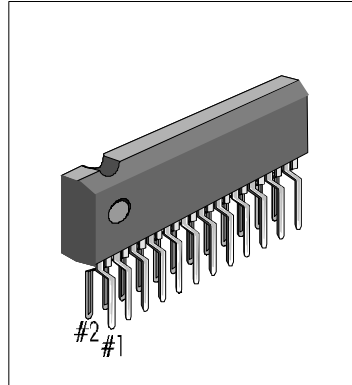
# KA22234

# 5 BAND DUAL GRAPHIC EQ AMP

## INTRODUCTION

24-SZIP-275

The KA22234 is a monolithic integrated circuit developed for the stereo 5 band graphic equalizer amplifier. It is consisting of an operational amplifier, four resonant circuits with an active filter, and it is suitable for radio cassette, car stereo or music center.



## FEATURES

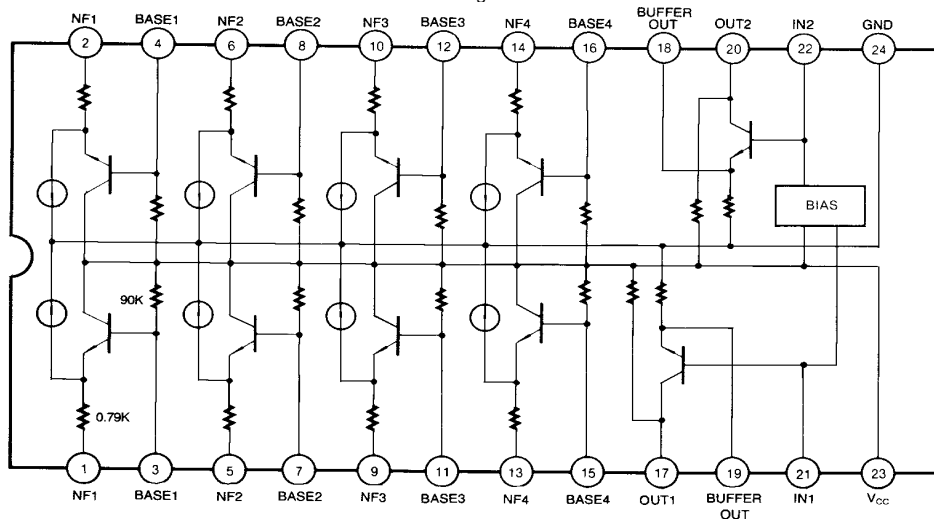
- Tone control with independent adjustment of each band through external capacitor
- Gain control through external variable resistor (Gain = ±11dB)
- Excellent cross talk characteristic (CT = 70dB Typ, at R<sub>G</sub> = 0)
- Wide operating supply voltage range: V<sub>CC</sub> = 3.5V ~14V

## ORDERING INFORMATION

Device	Package	Operating Temperature
KA22234	24-SZIP-275	-20°C ~+ 70°C

## BLOCK DIAGRAM

Fig. 1



**ABSOLUTE MAXIMUM RATINGS**

Characteristic	Symbol	Value	Unit
Supply Voltage	$V_{CC}$	15	V
Power Dissipation	$P_D$	500	mW
Operating Temperature	$T_{OPR}$	-20 ~ +70	°C
Storage Temperature	$T_{STG}$	-40 ~ +125	°C

**ELECTRICAL CHARACTERISTICS**(Ta = 25°C, V<sub>CC</sub> = 8V, R<sub>L</sub> = 20KΩ, Flat Mode, unless otherwise specified)

Characteristic	Symbol	Test		Min	Typ	Max	Unit	
		f(Hz)	Conditions					
Quiescent Circuit Current	$I_{CCQ}$		$V_I = 0$	4.0	7.0	10.0	mA	
Output Voltage	$V_O$	1K	THD = 1%	500	600		mV	
Total Harmonic Distortion	THD	1K			0.1	0.3	%	
Channel Balance	CB	1K		-1.0	0	1.0	dB	
Cross Talk	CT	1K		50	70		dB	
Output Noise Voltage	$V_{NO}$	Flat, RG = 2.2KΩ BW(-3dB) = 10Hz ~ 30KHz			10	20	μV	
Voltage Gain	Flat	$G_V$ (Flat)	1K	$V_I = 100mV$	-2.0	-1.5	1.0	dB
			100					
	Boost	$G_V$ (Boost)	300	$V_I = 100mV$	9.0	11.0	14.0	dB
			1K					
			3K					
			10K					
	Cut	$G_V$ (Cut)	100	$V_I = 100mV$	-14.0	-11.0	-9.0	dB
			300					
			1K					
			3K					
				10K				

TEST CIRCUIT

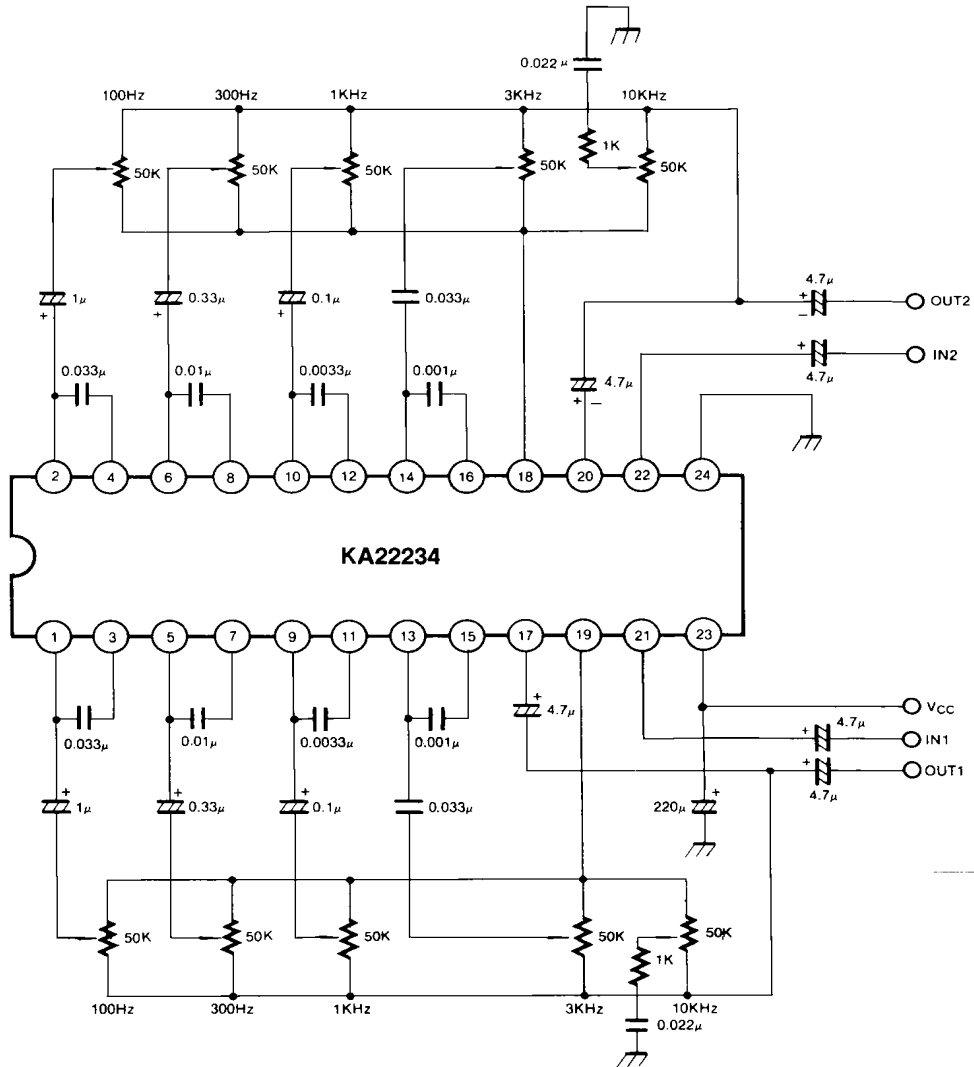
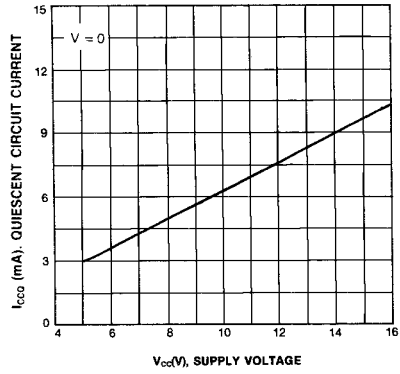
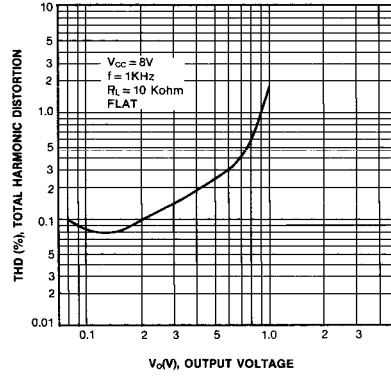


Fig. 2

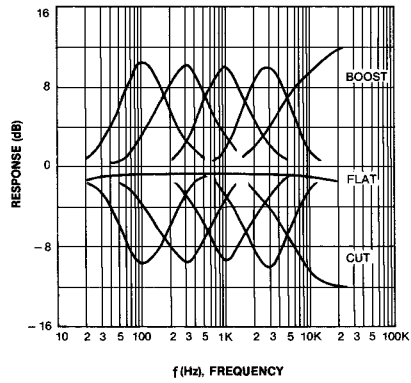
QUIESCENT CIRCUIT CURRENT-SUPPLY VOLTAGE



TOTAL HARMONIC DISTORTION-OUTPUT VOLTAGE

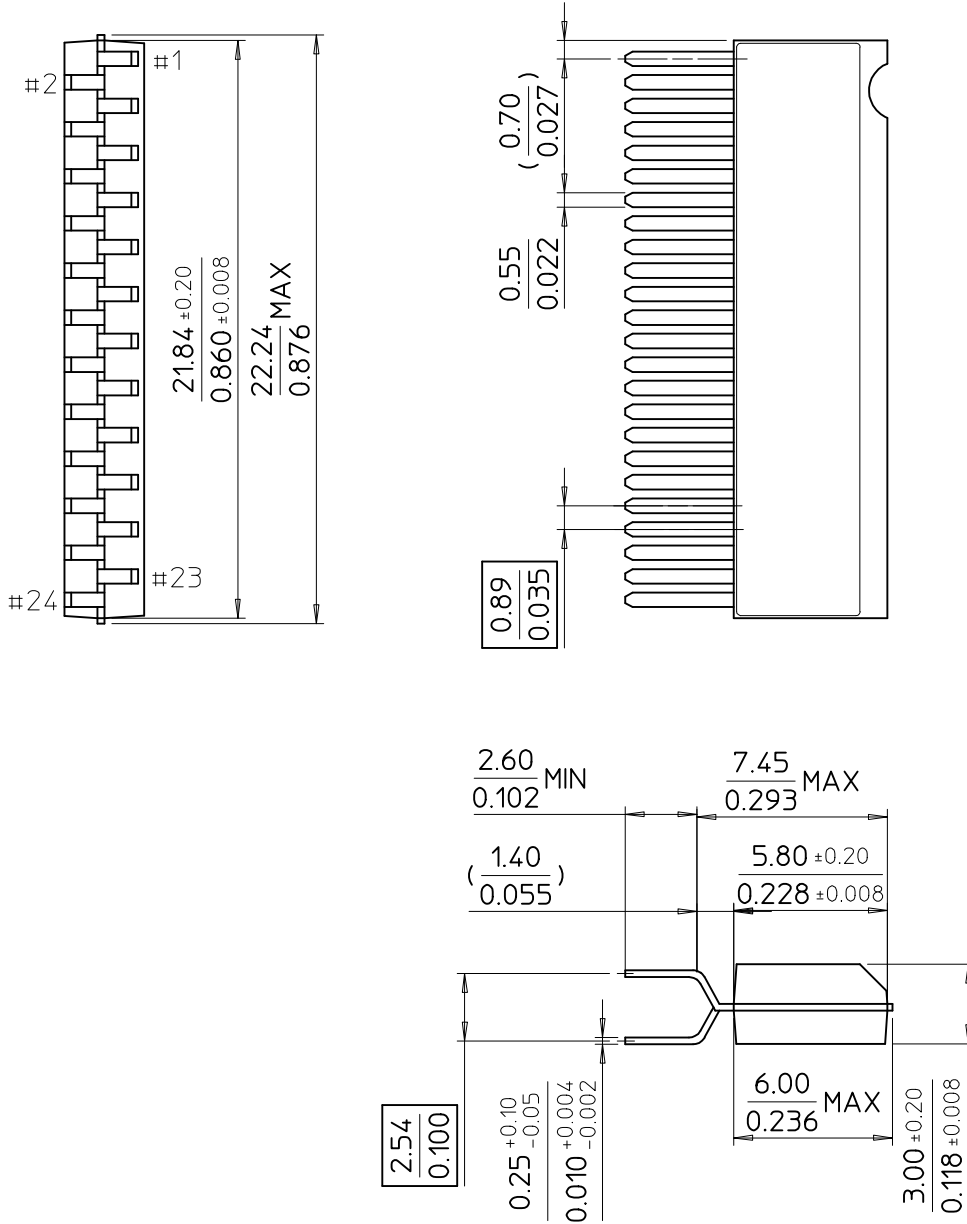


FREQUENCY RESPONSE



# 24-SZIP-275

Dimensions in Millimeters/Inches



SAMSUNG ELECTRONICS CO.,LTD.