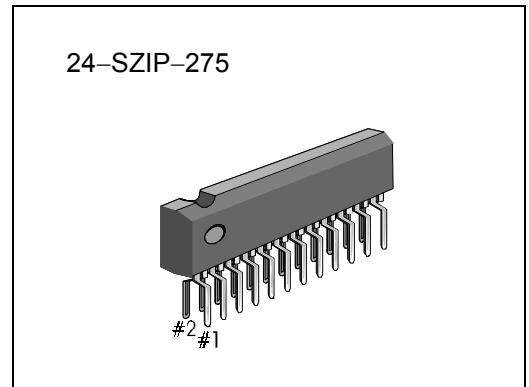


**INTRODUCTION**

The KA22234 is a monolithic integrated circuit developed for the stereo 5 band graphic equalizer amplifier. It consists of an operational amplifier, and four resonant circuits with an active filter. It is suitable for radio cassette-tape recorders, car stereos or music centers.

**FEATURES**

- Tone control with independent adjustment of each band through external capacitor
- Gain control through external variable resistor (Gain = ±11dB)
- Excellent cross talk characteristics (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**

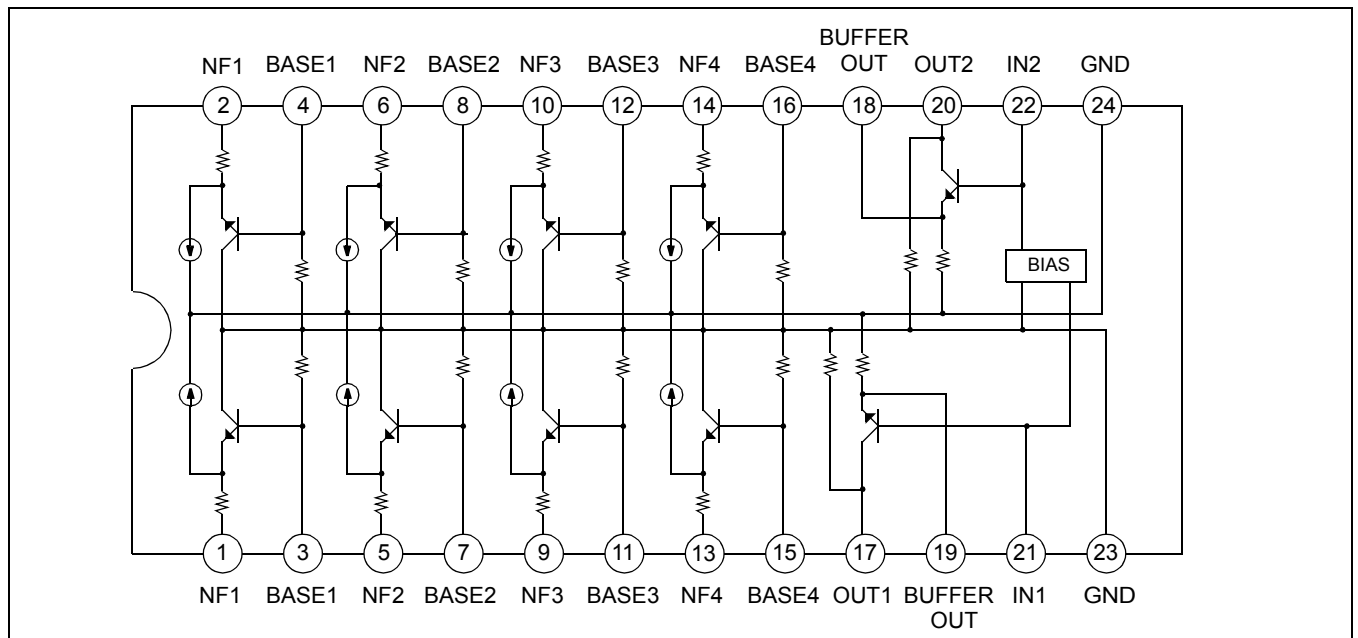


Figure 1.

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

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,  $V_{CC}$  = 8V,  $R_L$  = 20K, Flat Mode, unless otherwise specified)

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

TEST CIRCUIT

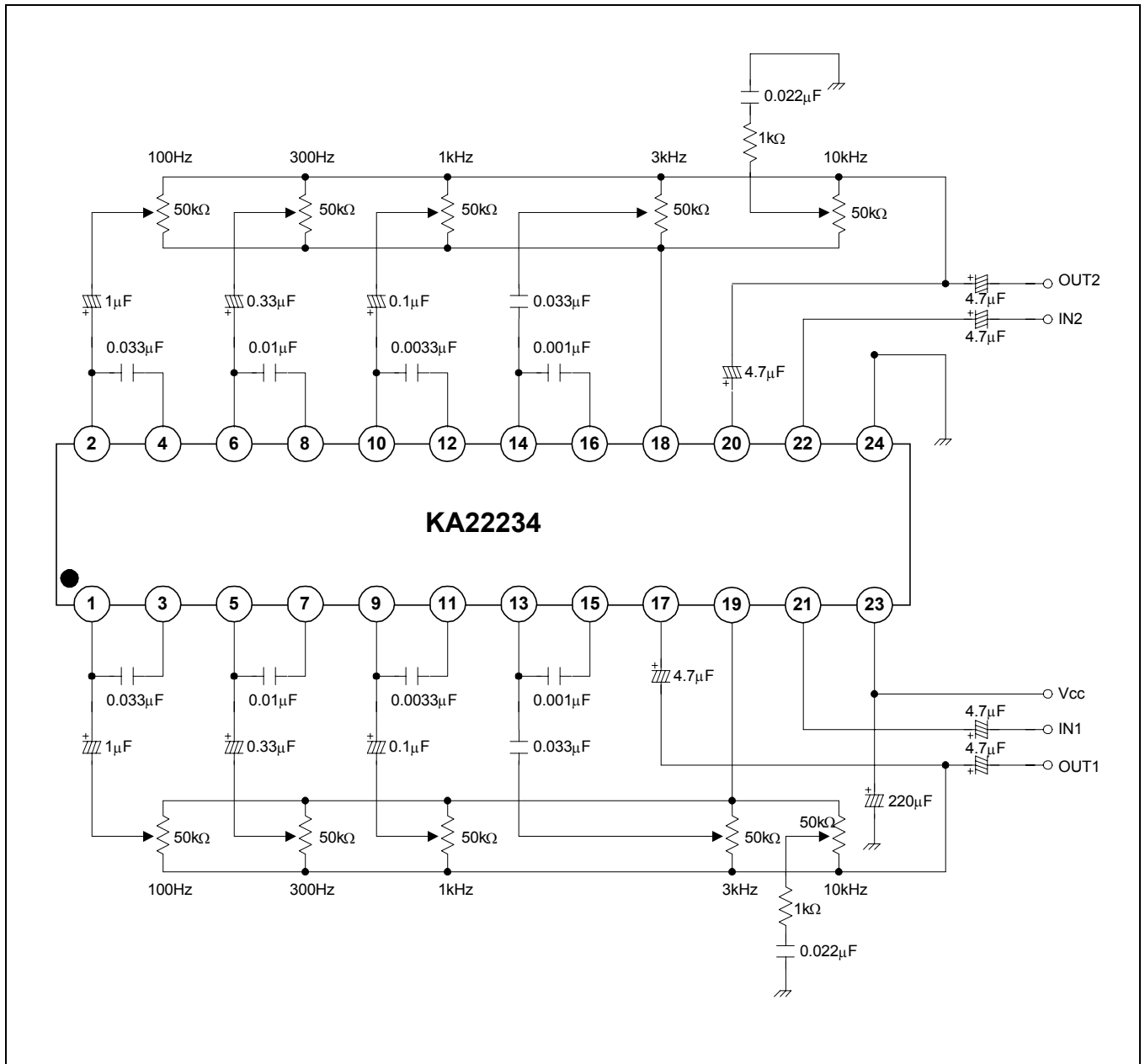
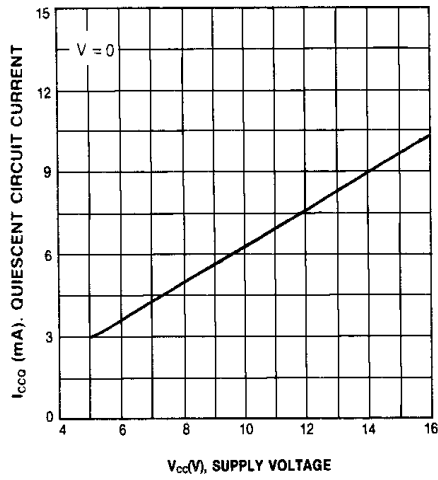
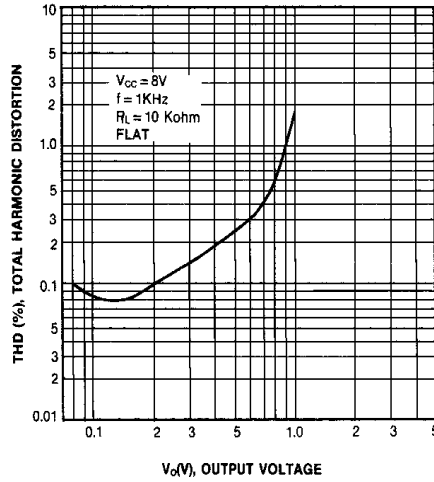


Figure 2.

QUIESCENT CIRCUIT CURRENT-SUPPLY VOLTAGE



TOTAL HARMONIC DISTORTION-OUTPUT VOLTAGE



FREQUENCY RESPONSE

