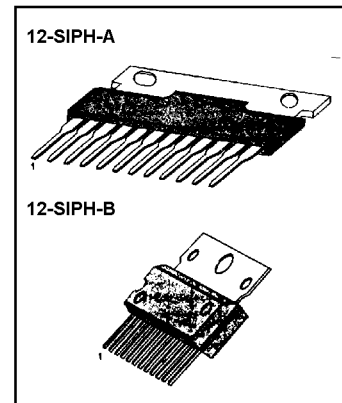


INTRODUCTION

The KA9257, a monolithic integrated circuit, is a dual power operational amplifier with a maximum output current of 0.5A. Since it consists of a balance transless, both forward and reverse operation of the motor can be achieved on a single power source. The device is suitable for a CD player.

FEATURES

- 2 channel BTL driver
- Low input bias (I_{ib} = 30nA)
- Built in phase compensation capacitor
- Housed in a 12SIP H/S package for easy heat discharge
- Improved crosstalk: (CT = 80dB)
- High output current: (I_o = 0.5A)



ORDERING INFORMATION

| Device | Package | Operating Temperature |
|---------|-----------|-----------------------|
| KA9257 | 12-SIPH-A | -25°C ~ +75°C |
| KA9257S | 12-SIPH-B | |

BLOCK DIAGRAM

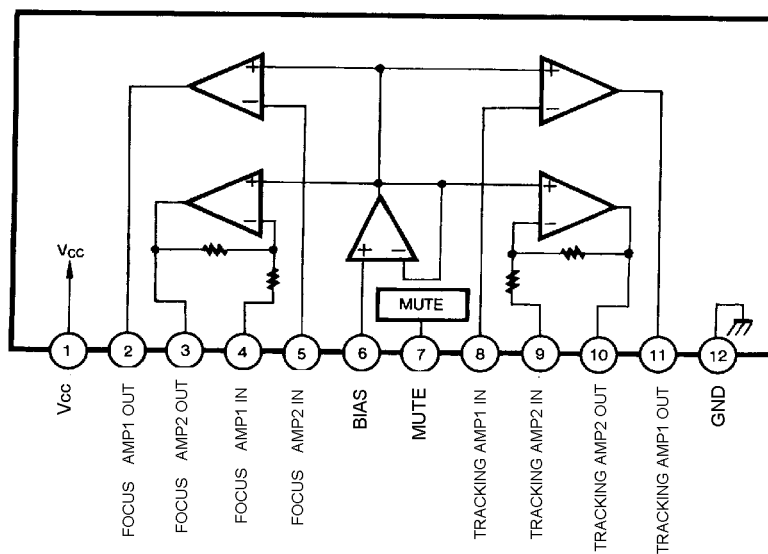


Fig. 1

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

| Characteristic | Symbol | Value | Unit |
|-----------------------|-----------|-------------|------------------|
| Supply Voltage | V_{CC} | 18 | V |
| Power Dissipation | P_D | 15 | W |
| Operating Temperature | T_{OPR} | - 25 ~ + 75 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -55 ~ + 150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS

 ($T_a = 25^\circ\text{C}$, $V_{CC} = 12\text{V}$, $f = 1\text{KHz}$, $R_L = 4\text{ohm}$, unless otherwise specified)

| Characteristic | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------------|--------------|---|-----|-----|-----|------------------------|
| Quiescent Circuit Current | I_{CCQ} | $V_I = 0$ | - | 3 | 10 | mA |
| Input Bias Current | I_{BIAS1} | $V_I = 0$ | - | 30 | 100 | nA |
| Input Bias Pin Current | I_{BIAS2} | $V_I = 0$ | - | 100 | 300 | nA |
| Output Offset Voltage | V_{OO} | $V_I = 0$ | -50 | 0 | 50 | mV |
| Maximum Source Current | I_{SOURCE} | $R_L = 4\text{ohm}$, $V_O = \text{GND}$ | 0.7 | 1.4 | - | A |
| Maximum Sink Current | I_{SINK} | $R_L = 4\text{ohm}$, $V_O = V_{CC}$ | 0.4 | 0.8 | - | A |
| Maximum Output Voltage | $V_{O(MAX)}$ | $V_I = 2\text{Vrms}$ | 1.8 | 2.5 | - | V_{rms} |
| Closed Loop Voltage Gain | G_{VC} | $V_I = 0.1\text{Vrms}$ | 5.0 | 6.0 | 7.0 | dB |
| Cut-off Frequency | f_T | $V_I = 0.1\text{Vrms}$, 3dB Down | 15 | 20 | - | KHz |
| Cross-Talk | CT | $V_I = 0.1\text{Vrms}$, BPF: 20-20KHz | 40 | 80 | - | dB |
| Ripple Rejection Ratio | RR | $V_{RR} = 0.1\text{Vrms}$, $F_{RR} = 120\text{Hz}$ | 30 | 40 | - | dB |
| Slew-Rate | SR | $V_I = 0.3\text{V}_{pp}$ Squarwave | - | 0.3 | - | $\text{V}/\mu\text{S}$ |

TEST CIRCUIT

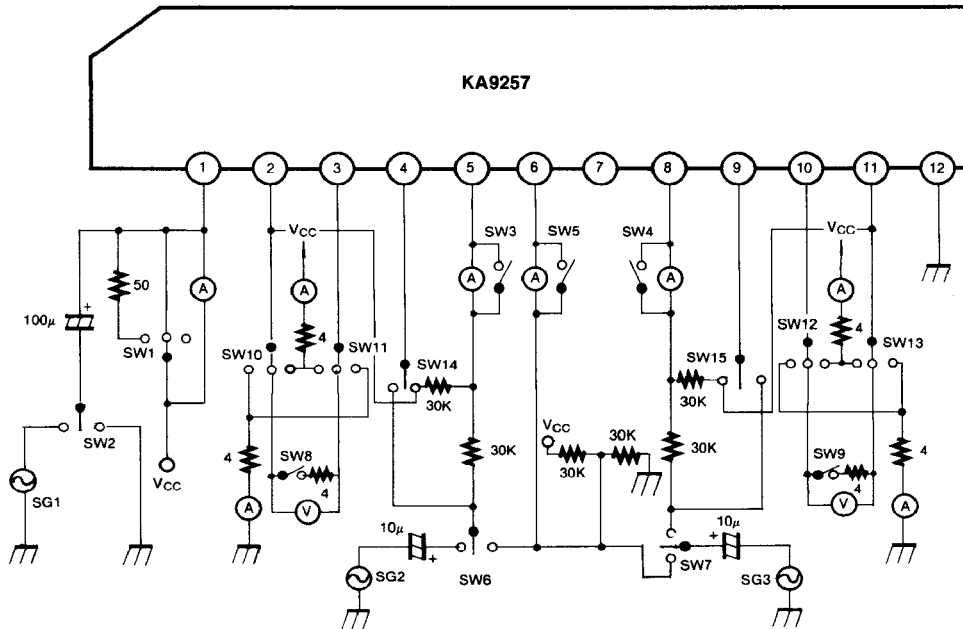


Fig. 2

APPLICATION CIRCUIT

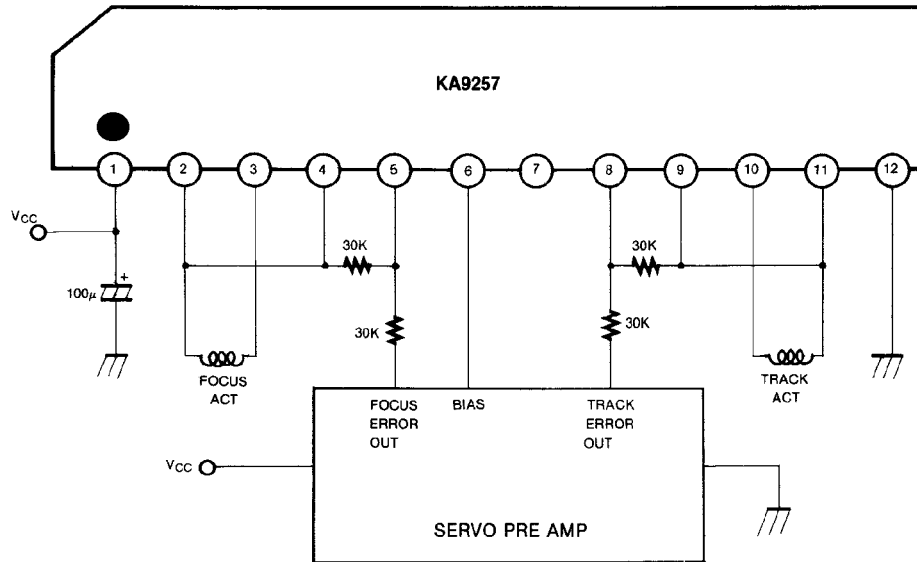


Fig. 3

Precautions

1. In designing the board, a minimum of 6cms of segregation should be allowed between the motor drive IC (KA9257) and other components such as the micom and/or Recorder/Player Ics.
2. To get a stable supply of voltage and radiation shield effect, the CD Deck needs to be grounded.

Dimensions in Millimeters

