

AN7110

1.2W Audio Power Amplifier

■ Description

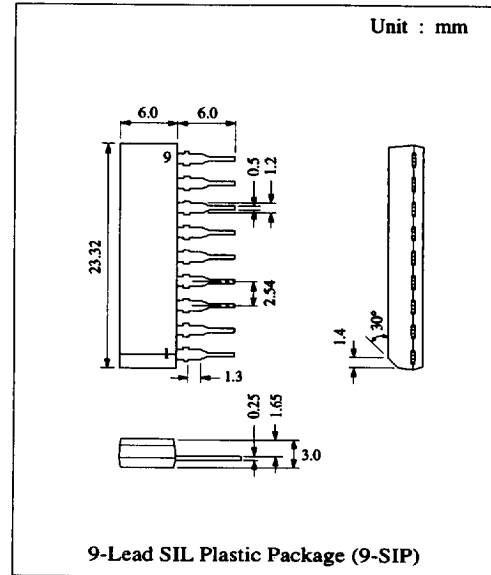
The AN7110 is a monolithic integrated circuit designed for audio power amplifier in portable radio sets.

■ Features

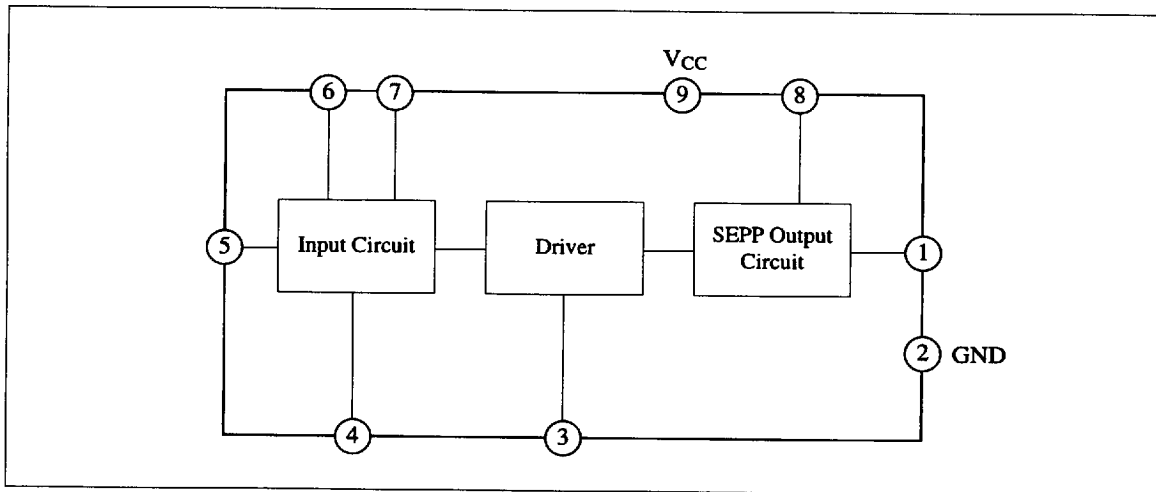
- Incorporating automatic operating point stabilizer
- Low noise
- Variable frequency characteristics
- Reduction in external components

■ Pin

| Pin No. | Pin Name |
|---------|--------------------|
| 1 | Output |
| 2 | GND |
| 3 | Phase Compensation |
| 4 | N.F.B. |
| 5 | Input |
| 6 | Ripple Filter |
| 7 | Ripple Filter |
| 8 | Bootstrap |
| 9 | V _{CC} |



■ Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

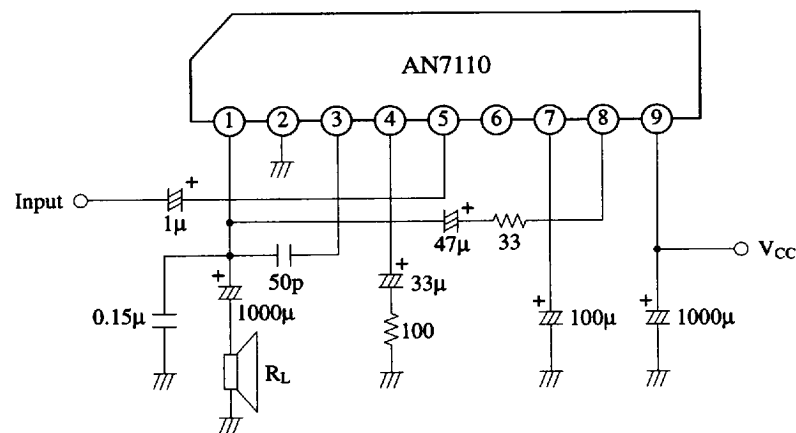
| Item | Symbol | Rating | Unit |
|-------------------------------|-----------------|------------|------|
| Supply Voltage | V _{CC} | 18 | V |
| Supply Current | I _{CC} | 2 | A |
| Power Dissipation | P _D | 1.5 | W |
| Operating Ambient Temperature | Topr | -20 ~ +75 | °C |
| Storage Temperature | Tstg | -40 ~ +150 | °C |

Operating Supply Voltage Range: V_{CC} = 4.5V ~ 10.0V

■ Electrical Characteristics (V_{CC}=9V, R_L=8Ω, f=1kHz, Ta=25°C)

| Item | Symbol | Condition | min. | typ. | max. | Unit |
|---------------------------|-----------------|--|------|------|------|------|
| Quiescent Current | I _{CQ} | V _{in} = 0mV | 10 | 20 | 50 | mA |
| Close-loop Voltage Gain | G _{VC} | V _{in} = 5mV | 43 | 46 | 49 | dB |
| Output Power | P _O | THD = 10% | 0.8 | 1.2 | | W |
| | | V _{CC} = 6V, R _L = 8Ω, THD = 10% | | 0.55 | | |
| | | V _{CC} = 6V, R _L = 4Ω, THD = 10% | | 0.9 | | |
| Total Harmonic Distortion | THD | V _{in} = 5mV | | 0.5 | 1.5 | % |
| Output Noise | V _{no} | R _g = 10kΩ | | 0.5 | 1.2 | mV |
| Input Impedance | Z _{in} | | | 25 | | kΩ |

■ Application Circuit

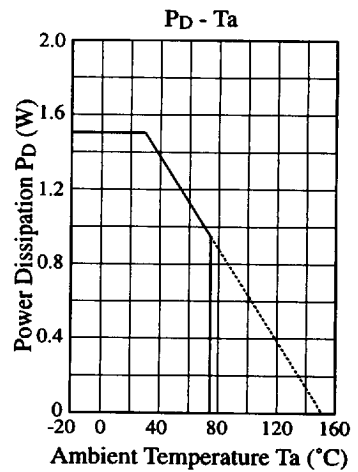
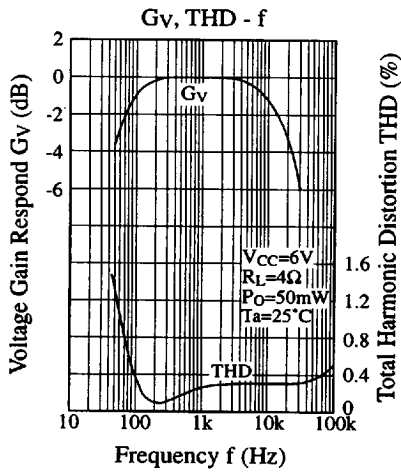
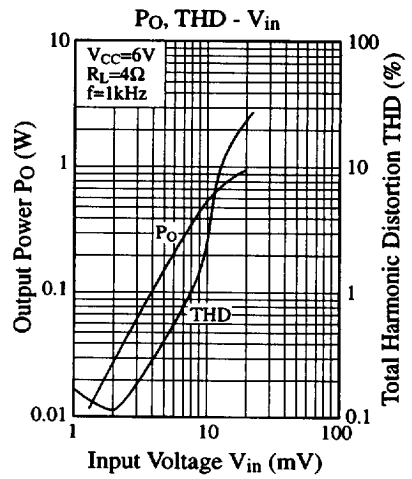
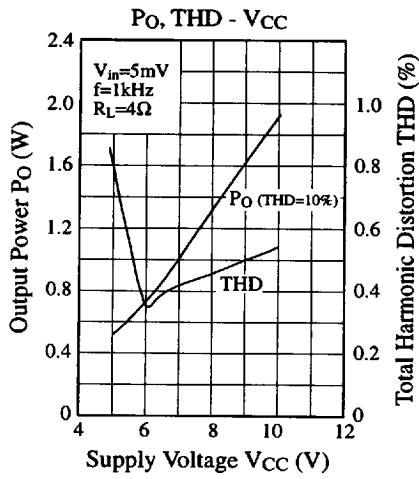


■ 6932852 0013752 270 ■

133

Panasonic

■ Characteristics Curve



■ Printed Circuit Board Layout (Scale: 1:1)

