

# AN7110

## 1.2W Audio Power Amplifier

### ■ Description

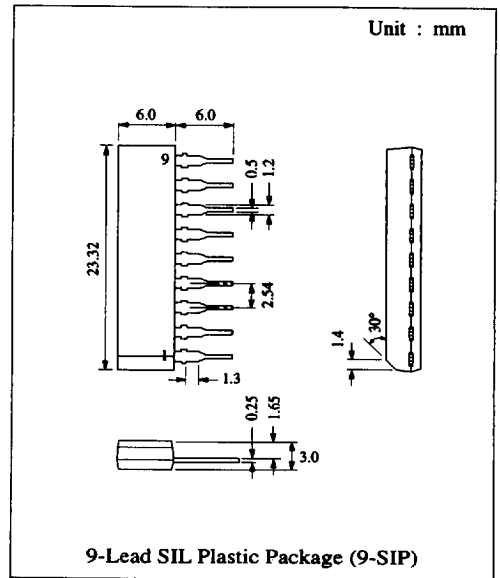
The AN7110 is a monolithic integrated circuit designed for audio power amplifier in portable radio sets.

### ■ Features

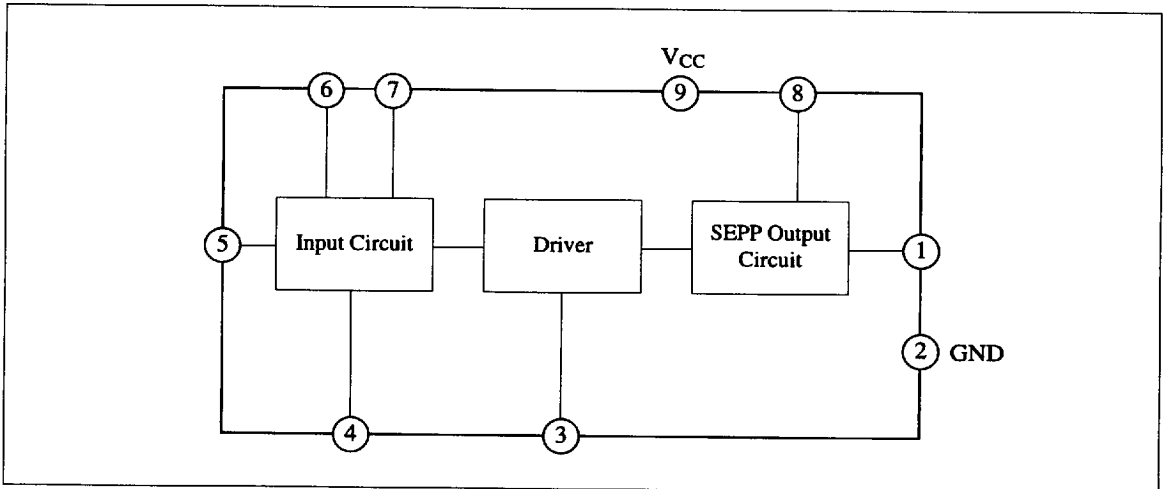
- Incorporating automatic operating point stabilizer
- Low noise
- Variable frequency characteristics
- Reduction in external components

### ■ 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 <sub>CC</sub>



### ■ Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

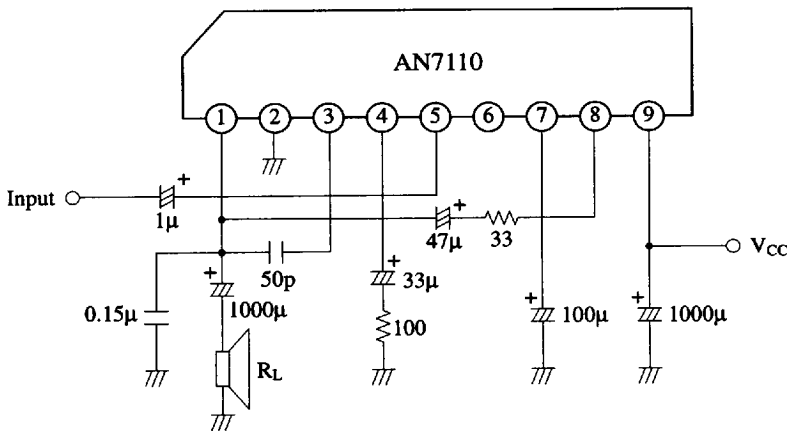
Item	Symbol	Rating	Unit
Supply Voltage	V <sub>CC</sub>	18	V
Supply Current	I <sub>CC</sub>	2	A
Power Dissipation	P <sub>D</sub>	1.5	W
Operating Ambient Temperature	T <sub>opr</sub>	-20 ~ +75	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +150	°C

Operating Supply Voltage Range: V<sub>CC</sub> = 4.5V ~ 10.0V

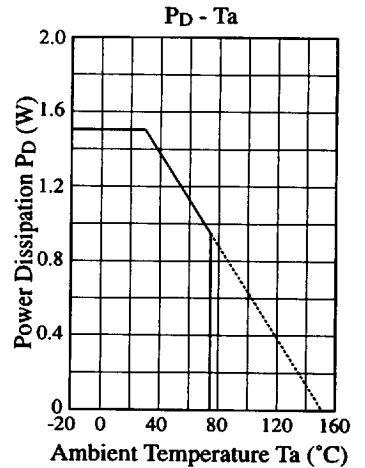
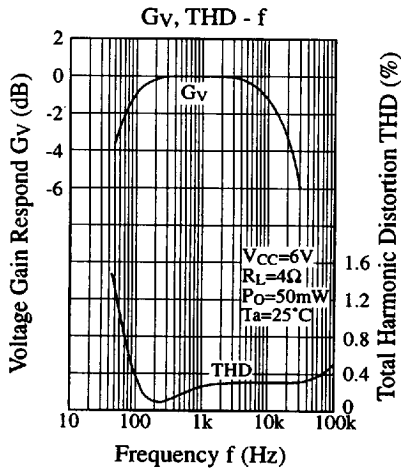
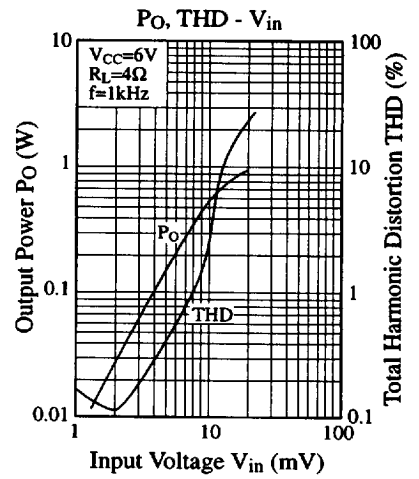
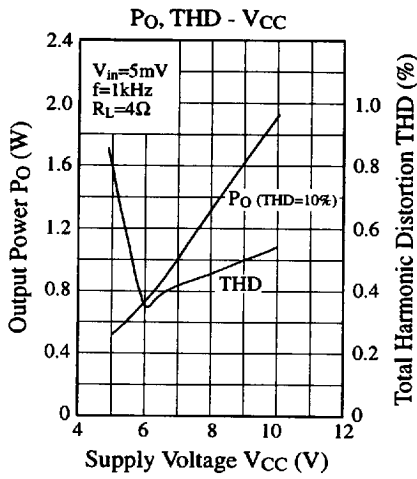
■ Electrical Characteristics (V<sub>CC</sub>=9V, R<sub>L</sub>=8Ω, f=1kHz, Ta=25°C)

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

■ Application Circuit



■ Characteristics Curve



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

