

AN7110

1.2W Audio Power Amplifier

■ Description

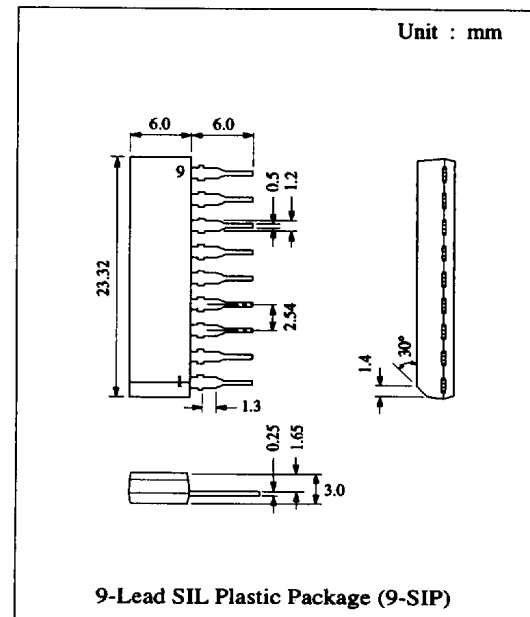
The AN7110 is a monolithic integrated circuit designed for audio power amplifier in portable radio sets.

■ Features

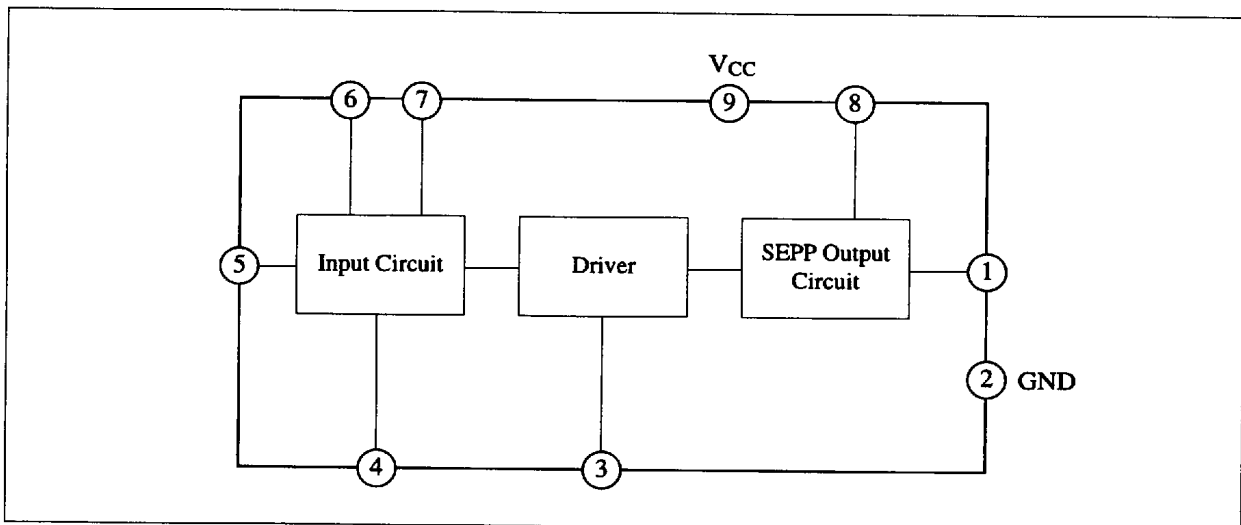
- Incorporating automatic operating point stabilizer
- Low noise
- Variable frequency characteristics
- Reduction in external components

■ 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)

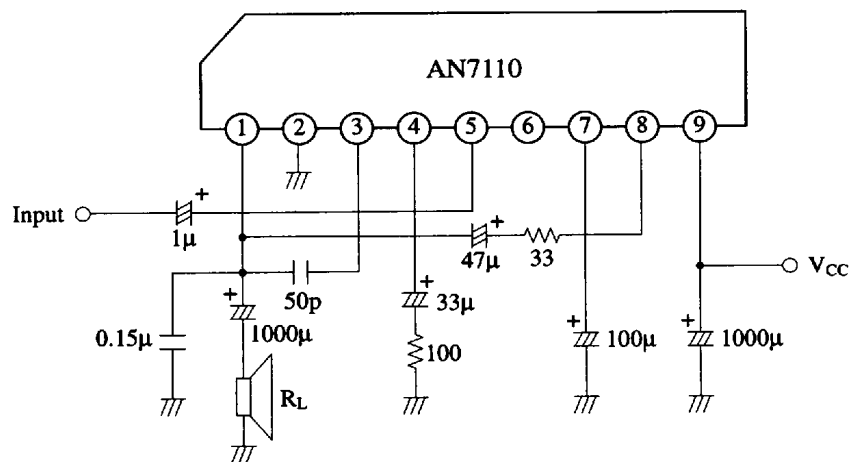
Item	Symbol	Rating	Unit
Supply Voltage	V _{CC}	18	V
Supply Current	I _{CC}	2	A
Power Dissipation	P _D	1.5	W
Operating Ambient Temperature	T _{opr}	-20 ~ +75	°C
Storage Temperature	T _{stg}	-40 ~ +150	°C

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

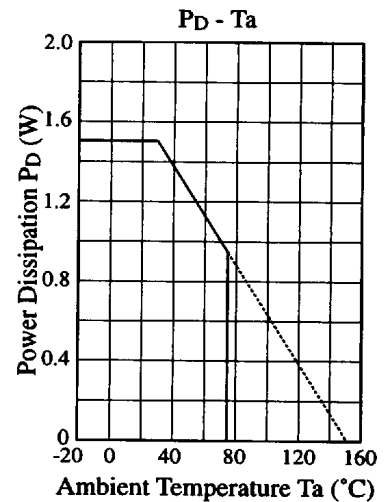
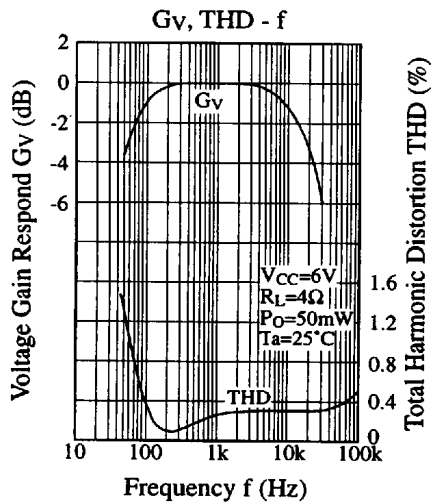
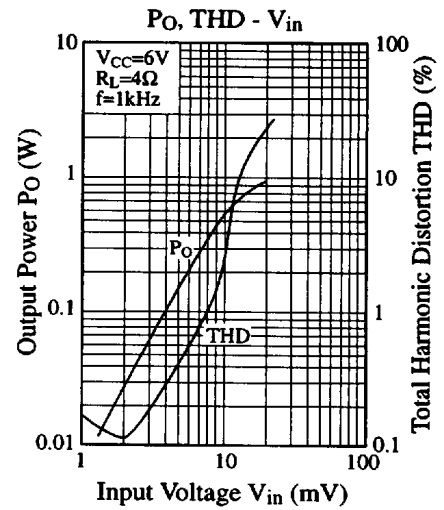
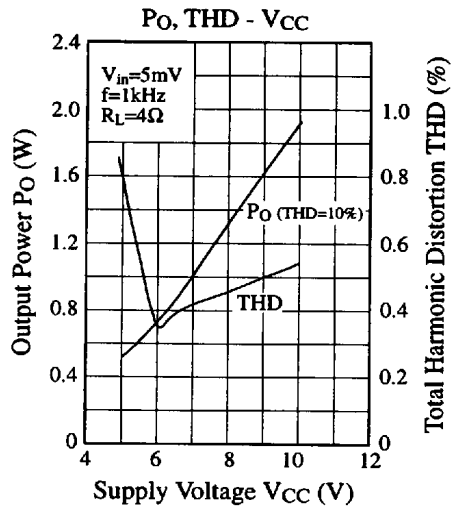
■ Electrical Characteristics (V_{CC}=9V, R_L=8Ω, f=1kHz, Ta=25°C)

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



■ Characteristics Curve



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

