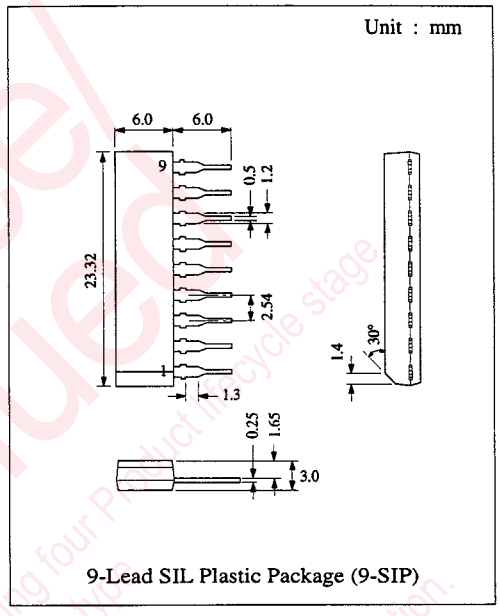
AN7111

1.2W Audio Power Amplifier

■ Description

The AN7111 is a monolithic integrated circuit designed for audio power amplifiers in consumer applications.



9-Lead SIL Plastic Package (9-SIP)

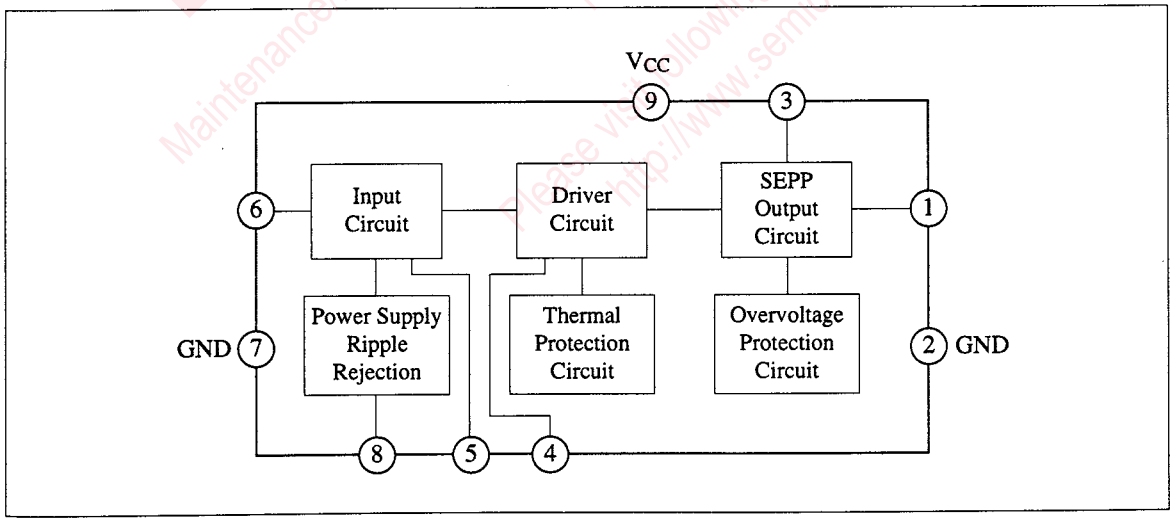
■ Features

- Built-in overvoltage and thermal protection circuits
- High closed loop gain: G_V = 53.5dB
- Output power: P_O = 1.2W at V_{CC} = 9.0V, R_L = 8Ω

■ Pin

Pin No.	Pin Name
1	Output
2	GND
3	Bootstrap
4	Oscillation Prevention
5	Negative Feedback
6	Input
7	GND
8	Ripple Filter
9	V_{CC}

■ Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

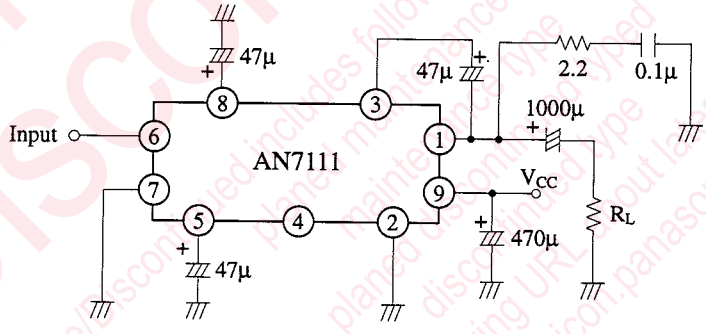
Item	Symbol	Rating	Unit
Supply Voltage	V_{CC}	18	V
Supply Current	I_{CC}	2	A
Power Dissipation (Ta ≤ 30°C) *	P_D	1.5	W
Operating Ambient Temperature	Topr	-30 ~ +75	°C
Storage Temperature	Tstg	-40 ~ +150	°C

Operating Supply Voltage Range: V_{CC} = 4.0V ~ 10.0V * $\theta j\text{-}c$ = 80°C/W

■ Electrical Characteristics (V_{CC}=9V, R_L=8Ω, f=1kHz, Ta=25±2°C)

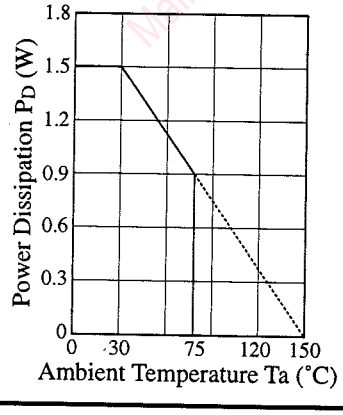
Item	Symbol	Condition	min.	typ.	max.	Unit
Quiescent Current	I_{CQ}	V_{in} = 0mV	7	17	35	mA
Voltage Gain	G_V	V_{in} = 3mA	51.5	53.5	55.5	dB
Output Power (1)	P_O	THD = 10%	0.8	1.2		W
Output Power (2)	P_O	V_{CC} = 6V, R_L = 4Ω, THD = 10%		0.9		W
Output Noise Voltage	V_{no}	R_g = 10kΩ		1.5	3.0	mV
Total Harmonic Distortion	THD	V_{in} = 3mV		0.3		%
Input Resistance	Z_{in}			30		kΩ

Test Circuit



■ Characteristics Curve

P_D - Ta



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