

AN7072N

High Voltage Audio Amplifier Muting Circuit

Description

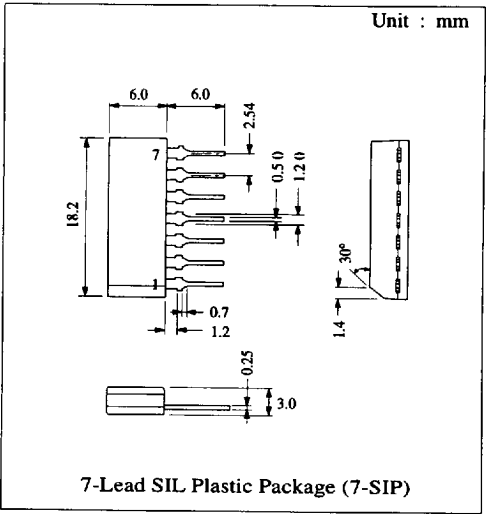
The AN7072N is a monolithic integrated circuit designed for muting and protecting of 60W-class Hi-Fi audio power amplifier, which enables superior Hi-Fi amplifier design in joint use with a power amplifier - the AN7062N.

Features

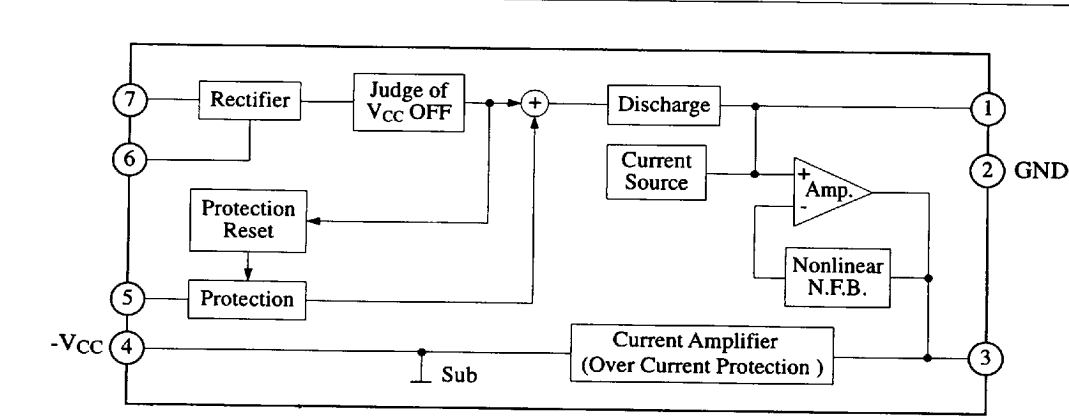
- Built-in muting circuit during power ON/OFF
- Low shock noise when power is switched ON and OFF
- Built-in circuit for muting when speaker short-circuits
- Built-in over-current protection circuit
- High voltage

Pin

Pin No	Pin Name
1	Muting
2	GND
3	Output
4	-V _{CC}
5	Load Short Reset
6	Output Reset
7	AC Input



Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

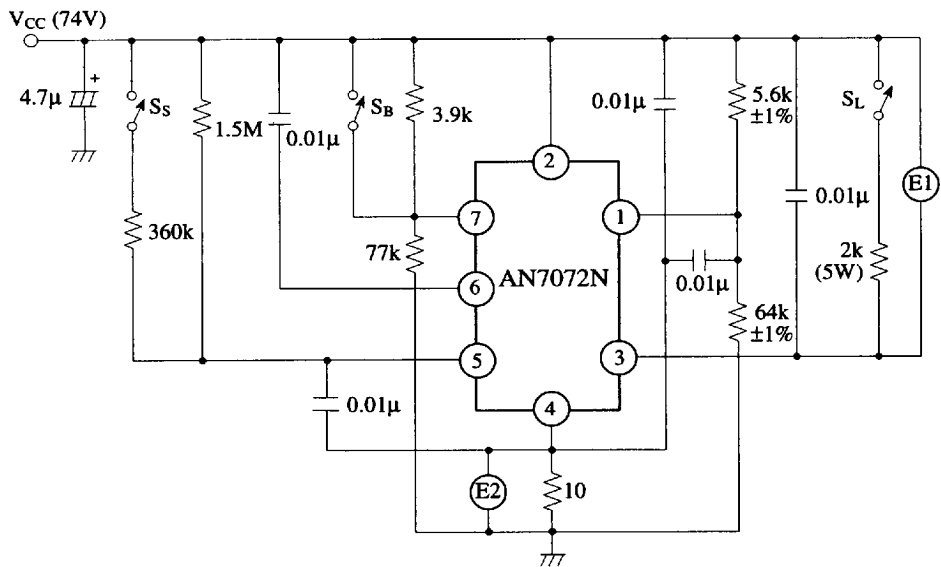
Item	Symbol	Rating	Unit
Supply Voltage	V _{CC}	74	V
Supply Current	I _{CC}	10	mA
Pin 3 Current	I ₃	100	mA
Pin 5 Current	I ₅	2	mA
Power Dissipation	P _D	1000	mW
Operating Ambient Temperature	Topr	-25 ~ +75	°C
Storage Temperature	Tstg	-55 ~ +150	°C

Operating Supply Voltage Range: V_{CC} = 15.0 V ~ 74.0V

■ Electrical Characteristics (V_{CC}=74V, Ta=25°C)

Item	Symbol	Condition			min.	typ.	max.	Unit
		S _B	S _L	S _S				
Supply Current (Normal)	I _{CC}	OFF	OFF	OFF	3.5	5.0	6.5	mA
Supply Current (Muting)	I _{CC(Mute)}	OFF	OFF	ON/OFF	3.5	5.0	6.5	mA
Output Voltage (Muting)	V _{O(Mute)}	ON	ON	OFF			1.0	V
Output Voltage (Normal)	V _O	OFF	ON	OFF	65			V
Output Voltage (Speaker Short-Circuit)	V _{O(sp-short)}	OFF	ON	ON/OFF			1.0	V

Test Circuit



- Note 1) I_{CC}, I_{CC(mute)} : Measured by Meter E2
Note 2) V_{O(mute)}, V_O, V_{O(sp-short)} : Measured by Meter E1
Note 3) I_{CC(mute)}, V_{O(sp-short)} : S_S is set OFF after ON for I_{CC(mute)} and V_{O(sp-short)}