

6V/430mW single-channel power amplifier

BA526

The BA526 is a high-output monolithic power amplifier with excellent audio quality. With a 6V power supply, it has a rated output of 430mW into an 8 Ω load (THD = 10%), and a maximum output of 700mW. It comes in a compact 9-pin SIP package.

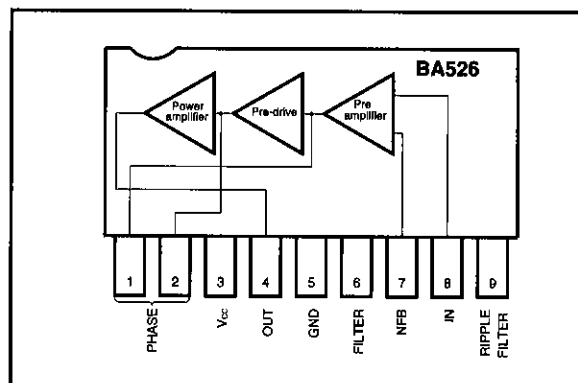
●Applications

Portable radios,
TV sets,
cassette recorders,
interphones,
and wireless tranceivers

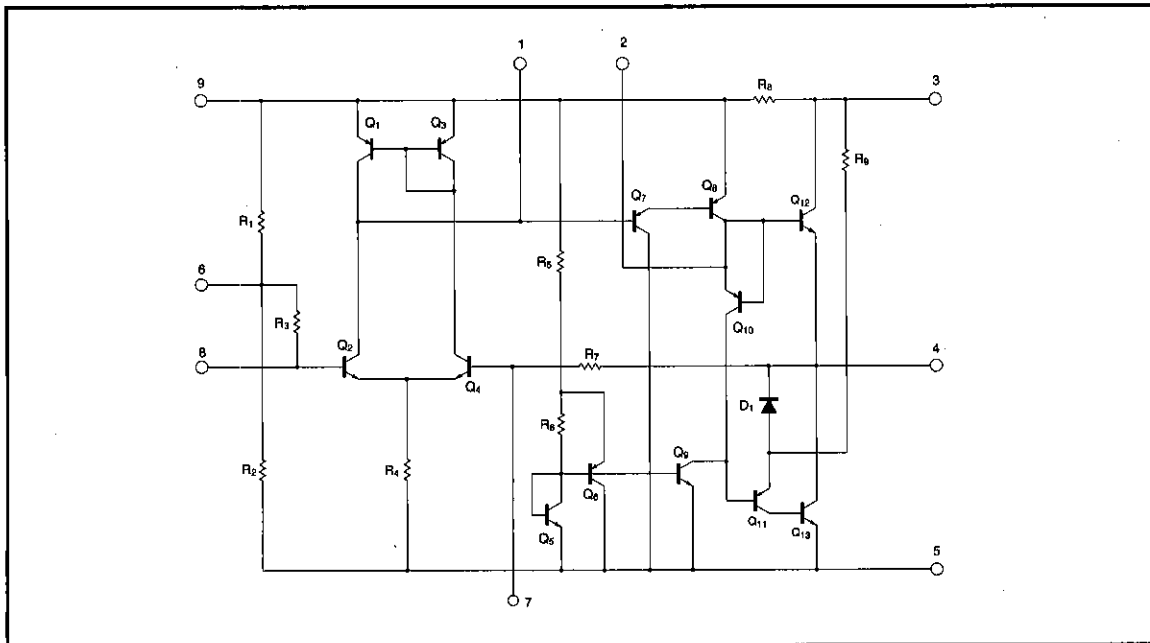
●Features

- 1) High output. $P_{OUT} = 430\text{mW}$ ($V_{CC} = 6\text{V}$ and an 8 Ω load (THD = 10%).
- 2) Good low voltage characteristics. Begins operating at 2V.
- 3) Easy-to-mount 9-pin SIP package.
- 4) Extremely low high-frequency distortion with small signals. Uses soft clipping for good audio quality.
- 5) Power-on "pop" noise is suppressed.
- 6) Low noise.

●Block diagram



● Internal circuit diagram



● Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	9	V
Power dissipation	P _d	950*	mW
Operating temperature	T _{opr}	-10~65	°C
Storage temperature	T _{stg}	-30~125	°C

* Reduced by 9.5mW for each increase in Ta of 1°C over 25°C.

● Electrical characteristics (unless otherwise specified Ta = 25°C, V_{CC} = 6V, R_L = 8 Ω and f = 1kHz)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition	Measurement Circuit
Quiescent circuit current	I _Q	—	12	24	mA	V _{IN} =0V _{rms}	Fig.1
Closed-circuit voltage gain	G _{VC}	48	52	54	dB	R _{NF} =47 Ω, V _{IN} =2.5mV _{rms}	Fig.1
Maximum output power	P _{OM}	600	700	—	mW	V _{IN} =25mV _{rms}	Fig.1
Rated output power	P _{OUT}	350	430	—	mW	THD=10%	Fig.1
Output noise voltage	V _{NO}	—	0.25	0.7	mV _{rms}	R _g =0 Ω	Fig.1
Total harmonic distortion	THD	—	0.4	2	%	P _O =50mW	Fig.1
Input resistance	R _{IN}	—	22	—	k Ω	P _O =50mW	Fig.1

● Measurement circuit

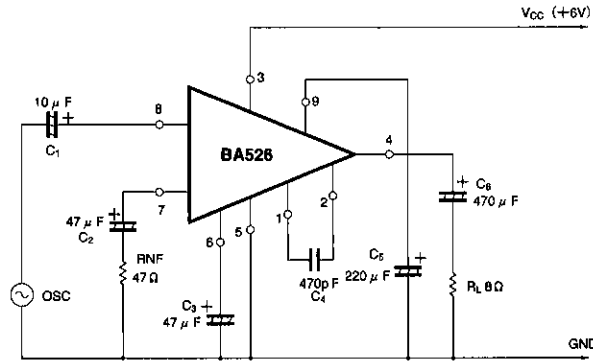


Fig. 1

● Application example

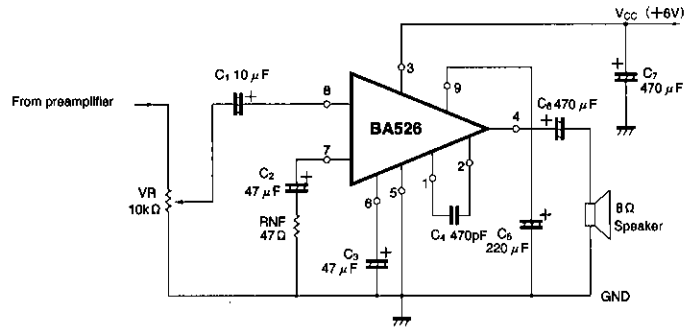
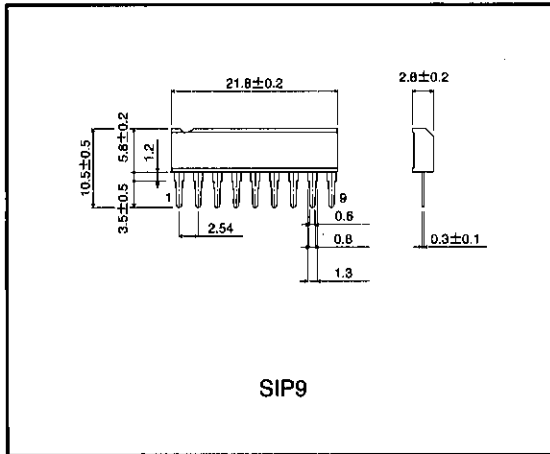


Fig. 2

● External dimensions (Unit: mm)



Power amplifiers

Low-frequency amplifiers