6V / 800mW single-channel power amplifier BA527

The BA527 is a monolithic power amplifier designed for portable cassette players and radio cassette players. With a 6V power supply, it has a rated output of 800mW into a 4Ω load (THD = 10%). It is a high-grade design that generates almost no audible switching noise, and is ideal for high-end compact cassette players (including those with radio).

Applications

Portable cassette recorders and radio cassette recorders

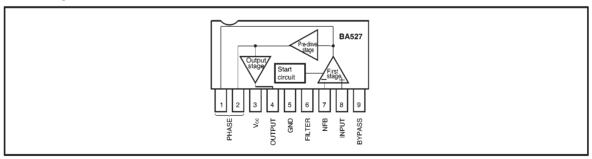
Features

- 1) Rated power output is 800mW (Vcc = 6V and a 4Ω load (THD = 10%). Maximum output is 1300mW.
- 2) Pin compatible with the Rohm BA526 power amplifier, and can be interchanged to suit the application.
- Compact 9-pin SIP package that does not require a heatsink. Allows more compact set designs, and is

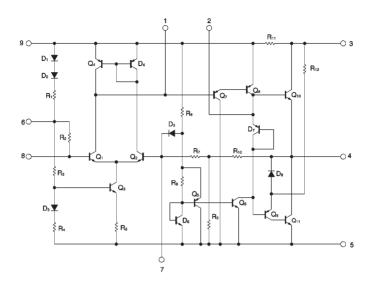
easy to mount.

- High ripple rejection ratio (55dB) and generates almost no "pop" noise.
- 5) Excellent low voltage characteristics (starts operating at SV < 2.8V).

Block diagram



●Internal circuit configuration



●Absolute maximum ratings (Ta = 25°C)

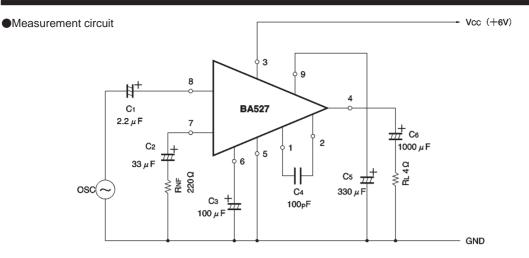
Parameter	Symbol	Limits	Unit	
Power supply voltage	Vcc	9	V	
Power dissipation	Pd	950*	mW	
Operating temperature	Topr	−10~ +65	°C	
Storage temperature	Tstg	-30 ∼+125	°C	

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

•Electrical characteristics (unless otherwise noted, Ta = 25°C, Vcc = 6V, RL = 4Ω, f= 1kHz and R_{NF} = 220Ω)

Parameter	Symbol	Min	Тур.	Max.	Unit	Conditions	Measurement circuit
Quiescent current	lα	_	16	25	mA	V _{IN} =0V _{rms}	Fig.1
Closed loop voltage gain	Gvc	43	46	49	dB	Vo=0.45V _{rms}	Fig.1
Maximum output power	Ром	900	1300	_	mW	_	Fig.1
Rated output power	Роит	700	800	_	mW	THD=10%	Fig.1
Output noise voltage	V _{NO}	_	0.2	0.7	mV _{rms}	R _g =0Ω	Fig.1
Total harmonic distortion	THD	_	0.45	1.8	%	Po=50mW, 1kHz	Fig.1
Input resistance	Rin	_	47	_	kΩ	Po=50mW	Fig.1

Audio ICs BA527



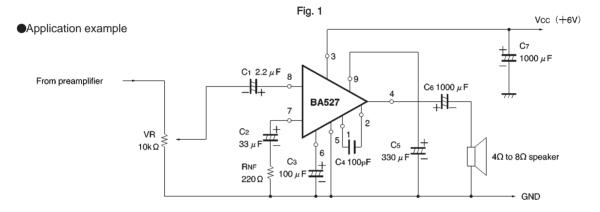


Fig. 2

