

TA8213K

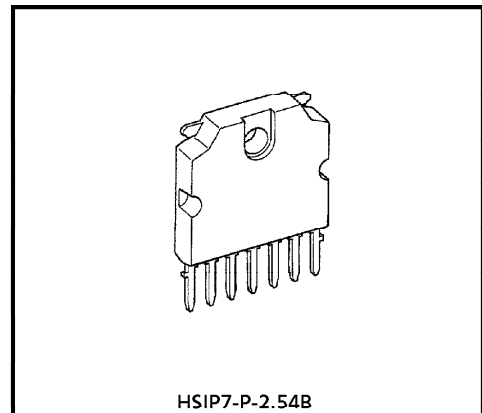
AUDIO POWER AMPLIFIER

The TA8213K is audio power amplifier for consumer applications.

This IC provides an output power of 6W (at $V_{CC} = 20V$, $R_L = 8\Omega$, $f = 1kHz$, $THD = 10\%$), it is suitable for power amplifier of TV.

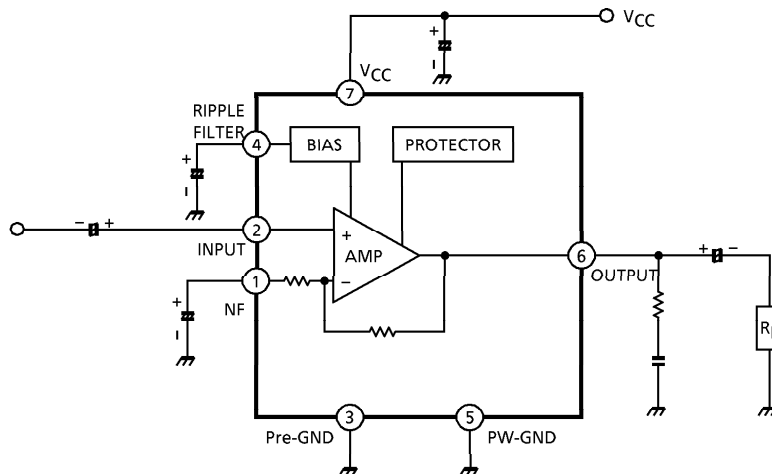
FEATURES

- High output power : $P_{out} = 6W$ (Typ.)
($V_{CC} = 20V$, $R_L = 8\Omega$, $f = 1kHz$, $THD = 10\%$)
- Low Noise : $V_{no} = 0.14mV_{rms}$ (Typ.)
($V_{CC} = 20V$, $R_L = 8\Omega$, $G_V = 34dB$, $R_g = 10k\Omega$, $BW = 20Hz \sim 20kHz$)
- Very few external parts
- Built in thermal shut down protector circuit
- Operation Supply Voltage Range : $V_{CC(opr)} = 10 \sim 30V$ ($T_a = 25^\circ C$)



Weight : 2.19g (Typ.)

BLOCK DIAGRAM



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● This product generates heat during normal operation. However, substandard performance or malfunction may cause the product and its peripherals to reach abnormally high temperatures.
The product is often the final stage (the external output stage) of a circuit. Substandard performance or malfunction of the destination device to which the circuit supplies output may cause damage to the circuit or to the product.

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MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	30	V
Output Current	I _O (peak)	2	A
Power Dissipation	P _D (Note)	15	W
Operating Temperature	T _{opr}	- 20~75	°C
Storage Temperature	T _{stg}	- 55~150	°C

(Note) Derated above Ta = 25°C in the proportion of 120mW/°C.

ELECTRICAL CHARACTERISTICS

(Unless otherwise specified, V_{CC} = 20V, R_L = 8Ω, R_G = 600Ω, f = 1kHz, Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	I _{CCQ}	—	V _{in} = 0	—	45	65	mA
Output Power	P _{out} (1)	—	THD = 10%	5.0	6.0	—	W
	P _{out} (2)	—	THD = 1%	—	4.5	—	
Total Harmonic Distortion	THD	—	P _{OUT} = 2W	—	0.1	0.7	%
Voltage Gain	G _V	—	V _{OUT} = 0.775V _{rms} (0dBm)	32.5	34.0	35.5	dB
Input Resistance	R _{IN}	—		—	30	—	kΩ
Ripple Rejection Ratio	R.R.	—	R _g = 0, f _{ripple} = 100Hz V _{ripple} = 0.775V _{rms} (0dBm)	- 45	- 57	—	dB
Output Noise Voltage	V _{no}	—	R _g = 10kΩ BW = 20Hz~20kHz	—	0.14	0.3	mV _{rms}

TEST CIRCUIT

