

TA8213K

AUDIO POWER AMPLIFIER

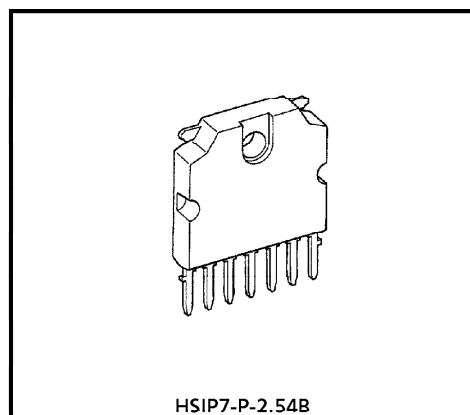
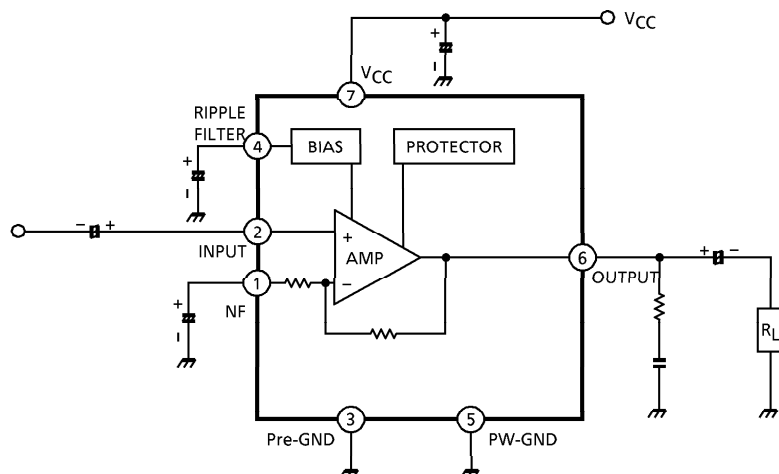
The TA8213K is audio power amplifier for consumer applications.

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 : $V_{CC(opr)} = 10 \sim 30V$ ($T_a = 25^\circ C$)

BLOCK DIAGRAM



Weight : 2.19g (Typ.)

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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

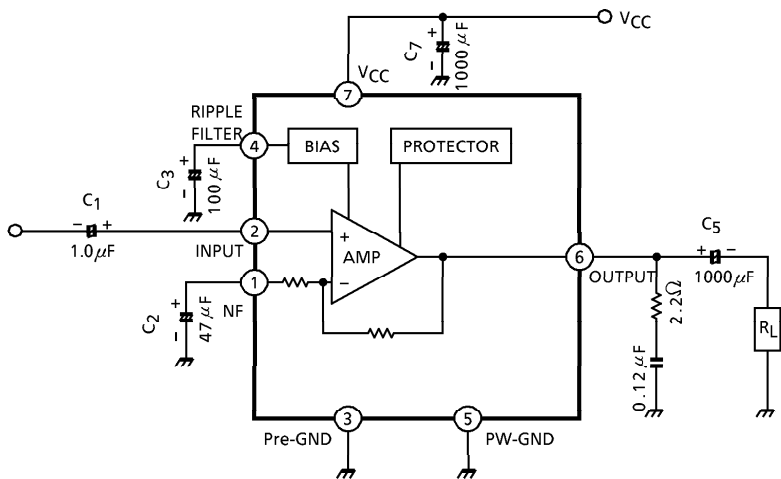
(Note) Derated above Ta = 25°C in the proportion of 120mW / °C.

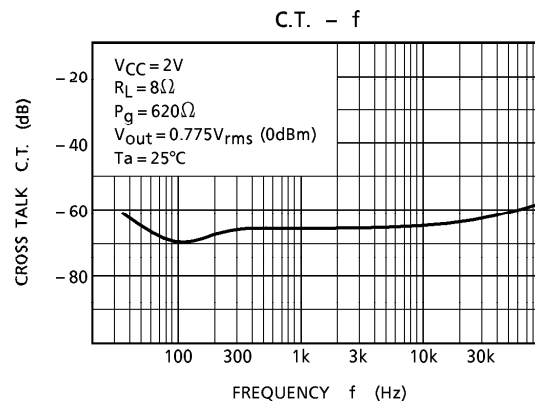
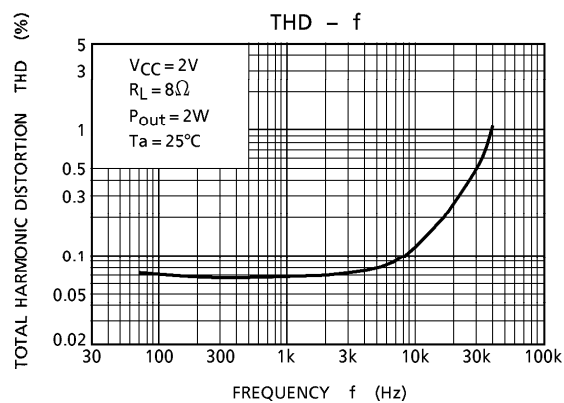
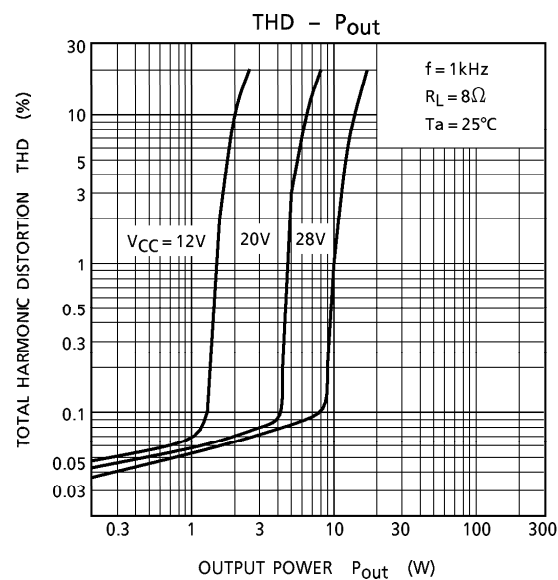
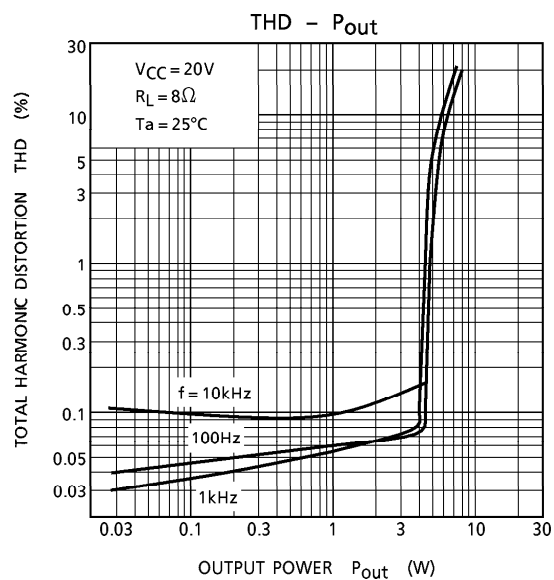
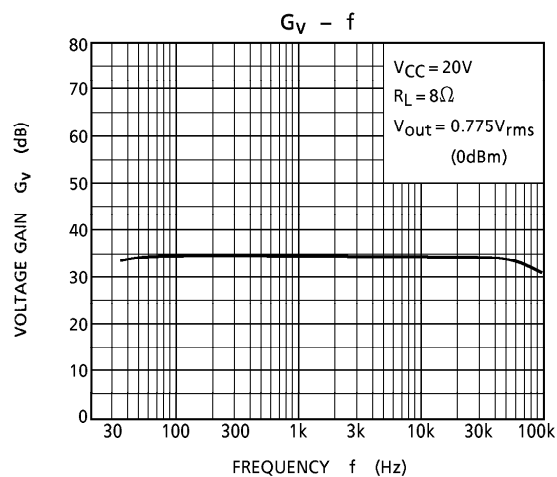
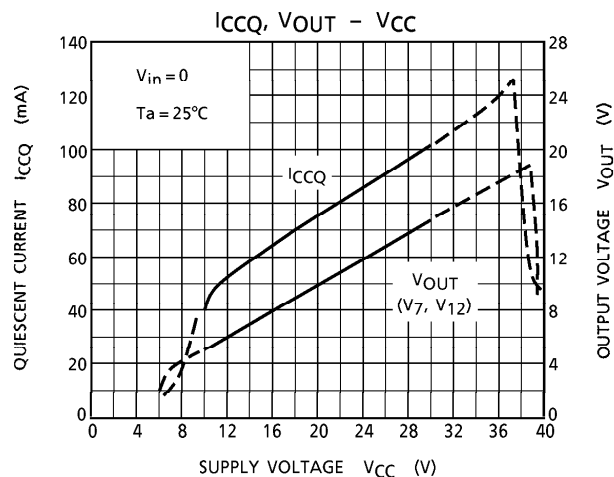
ELECTRICAL CHARACTERISTICS

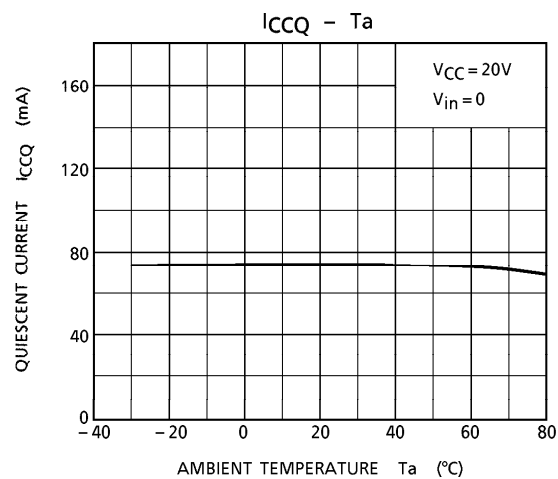
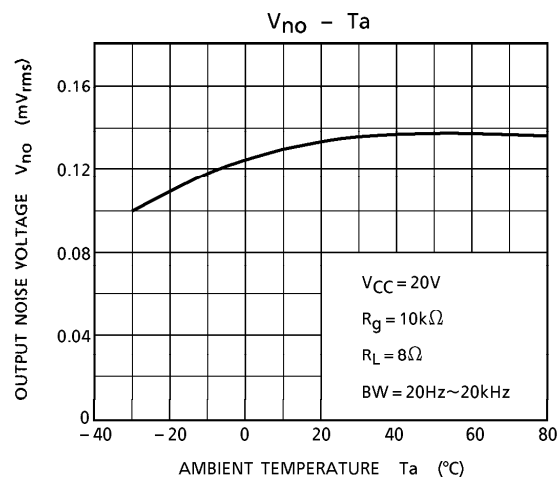
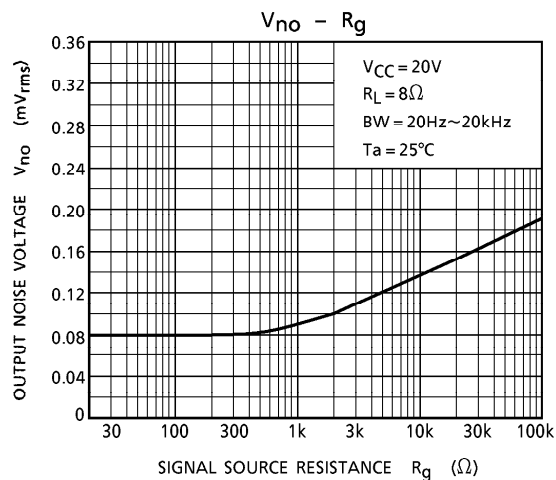
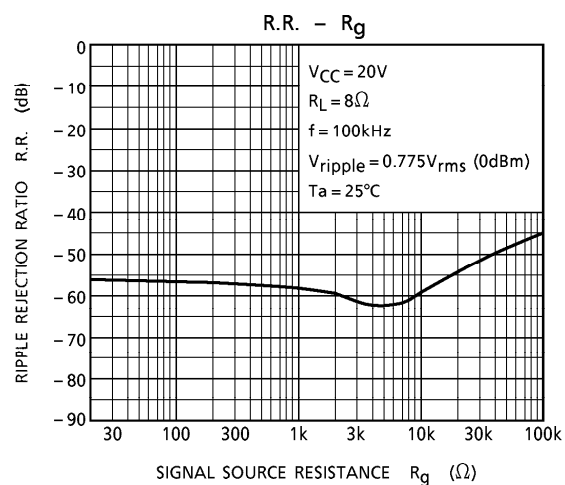
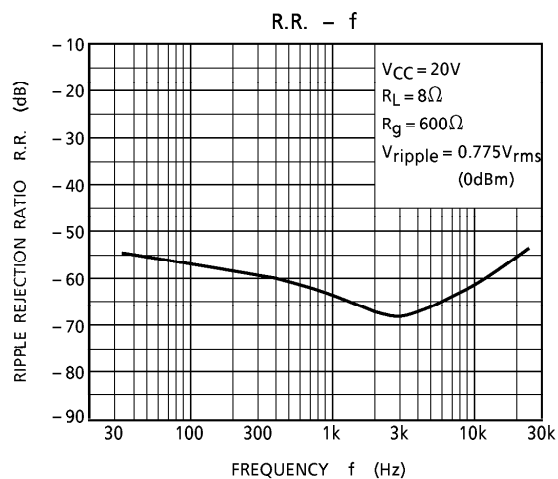
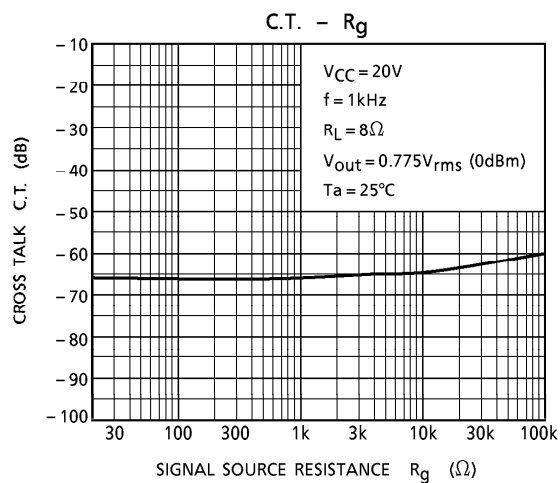
(Unless otherwise specified, V_{CC} = 20V, R_L = 8Ω, R_G = 600Ω, f = 1kHz, Ta = 25°C)

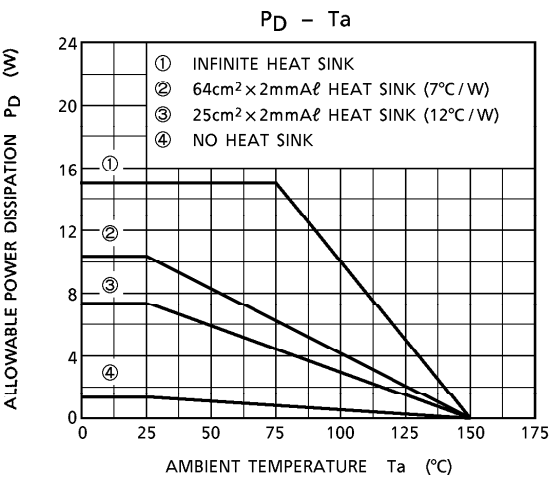
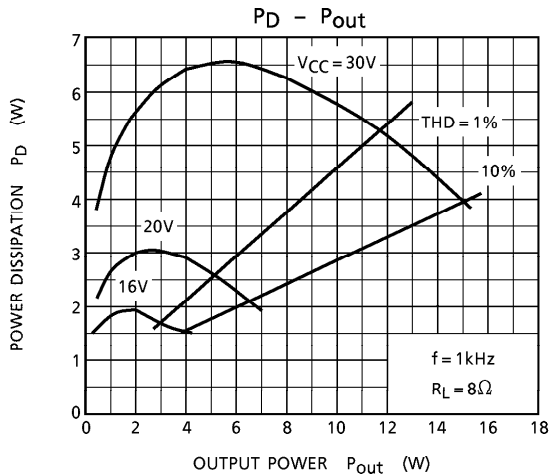
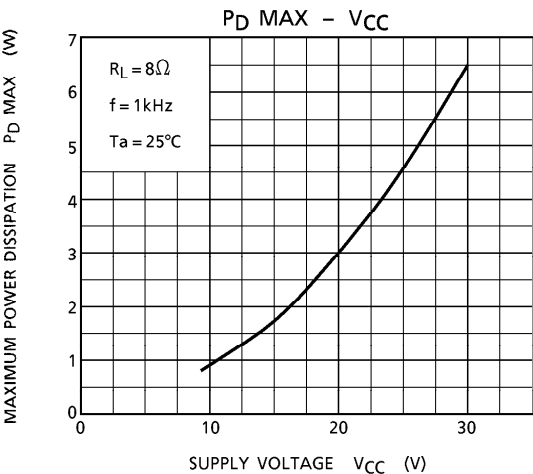
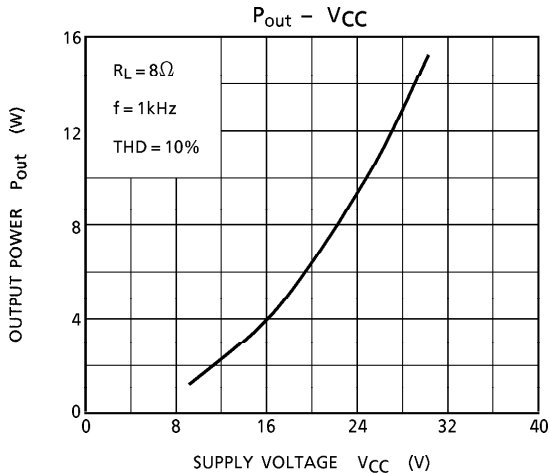
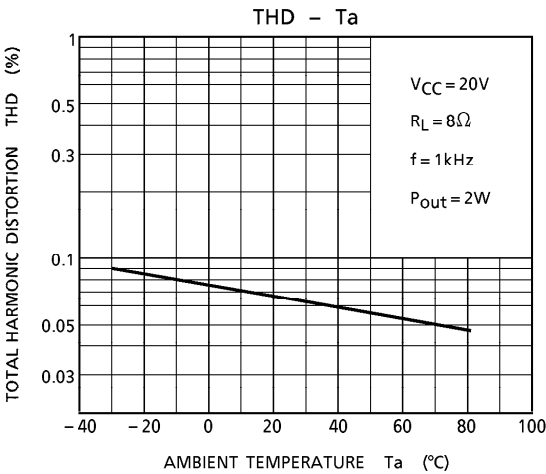
CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	I _{CCQ}	—	V _{in} = 0	—	45	65	mA
Output Power	P _{out} (1)	—	THD = 10%	5.0	6.0	—	W
	P _{out} (2)	—	THD = 1%	—	4.5	—	
Total Harmonic Distortion	THD	—	P _{OUT} = 2W	—	0.1	0.7	%
Voltage Gain	G _V	—	V _{OUT} = 0.775V _{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



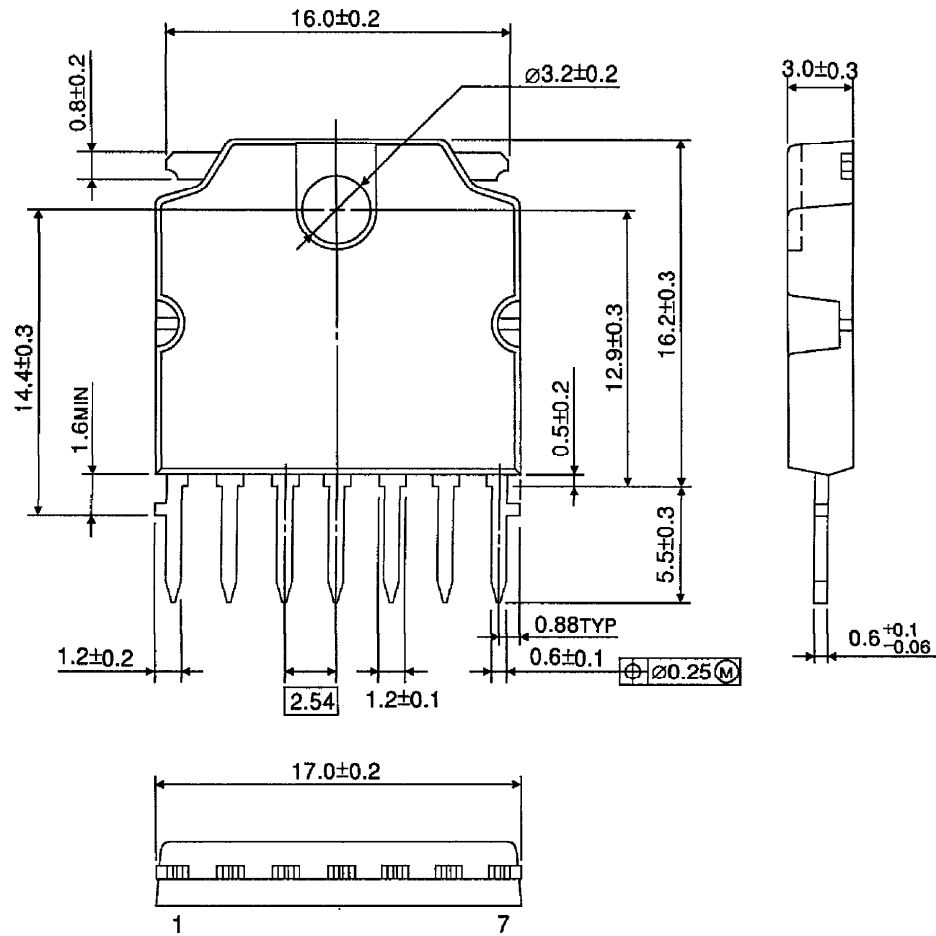






OUTLINE DRAWING
HSIP7-P-2.54B

Unit : mm



Weight : 2.19g (Typ.)