

TA8213K

Audio Power Amplifier

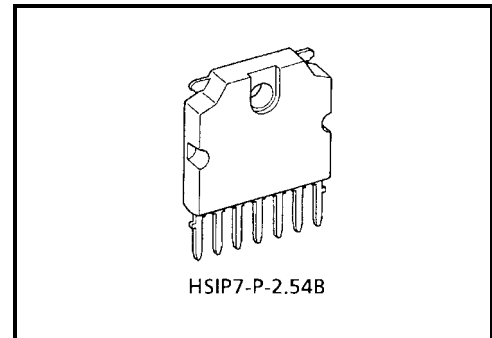
The TA8213K is audio power amplifier for consumer applications.

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

It is suitable for power amplifier of TV.

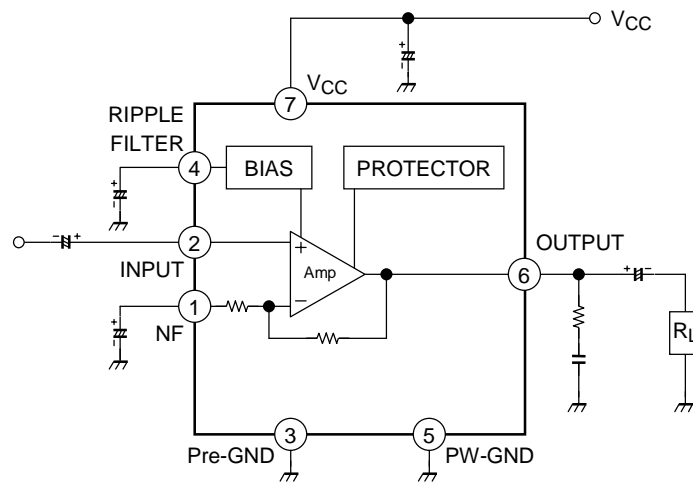
Features

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



Weight: 2.19 g (typ.)

Block Diagram



Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Supply voltage	V _{CC}	30	V
Output current (Peak/ch)	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

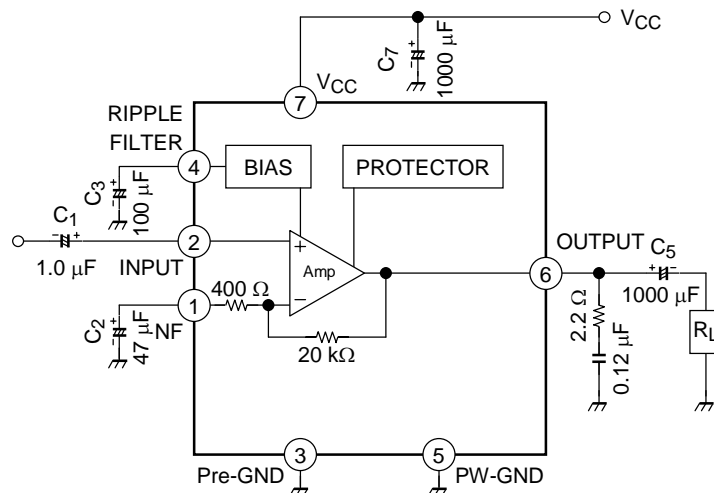
Note: Derated above Ta = 25°C in the proportion of 200 mW/°C.

Electrical Characteristics

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

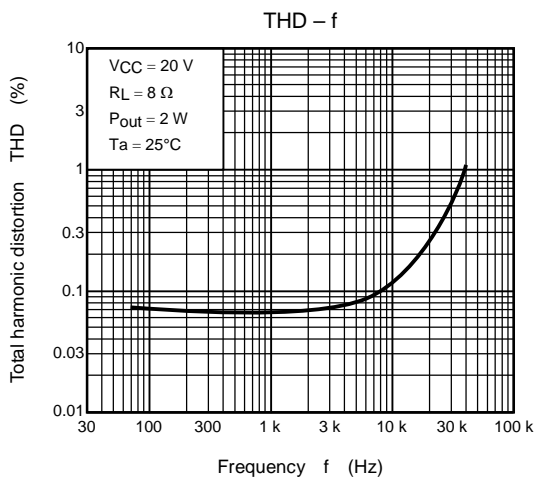
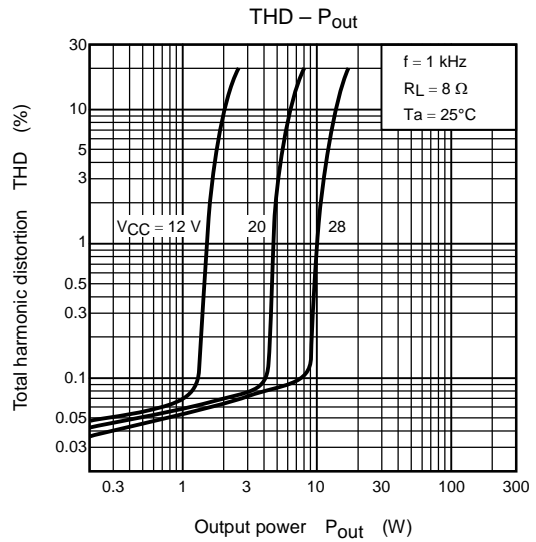
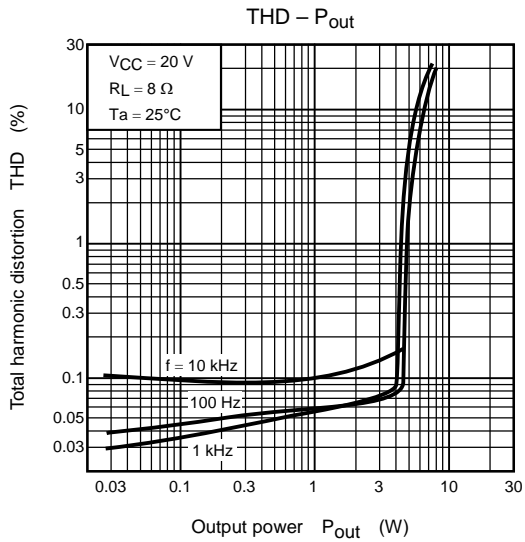
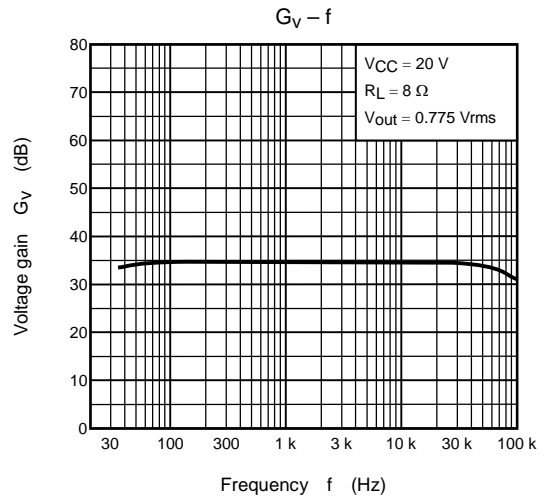
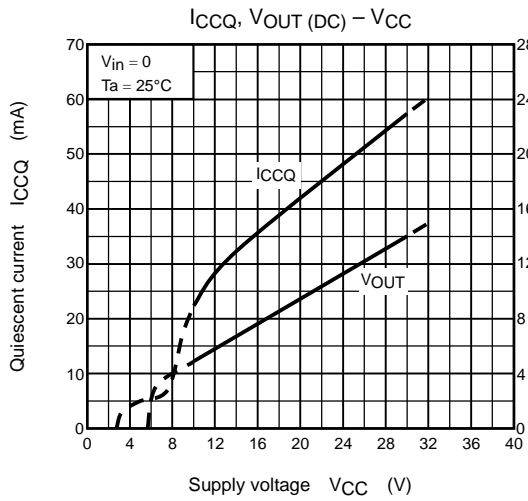
Characteristics	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Quiescent current	I _{CCQ}	—	V _{in} = 0	—	45	65	mA
Output power	P _{out} (1)	—	THD = 10%	5.0	6.0	—	W
	P _{out} (2)	—	THD = 1%	—	4.5	—	
Total harmonic distortion	THD	—	P _{out} = 2 W	—	0.1	0.7	%
Voltage gain	G _V	—	V _{out} = 0.775 V _{rms}	32.5	34.0	35.5	dB
Input resistance	R _{IN}	—	—	—	30	—	kΩ
Ripple rejection ratio	R.R.	—	R _g = 0, f _{ripple} = 100 Hz, V _{ripple} = 0.775 V _{rms}	-45	-57	—	dB
Output noise voltage	V _{no}	—	R _g = 10 kΩ, BW = 20 Hz~20 kHz	—	0.14	0.3	mV _{rms}

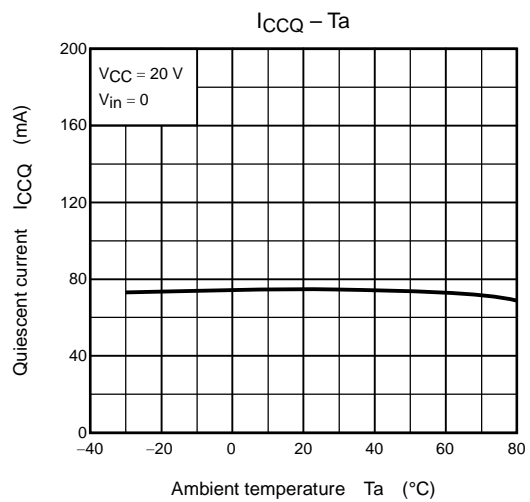
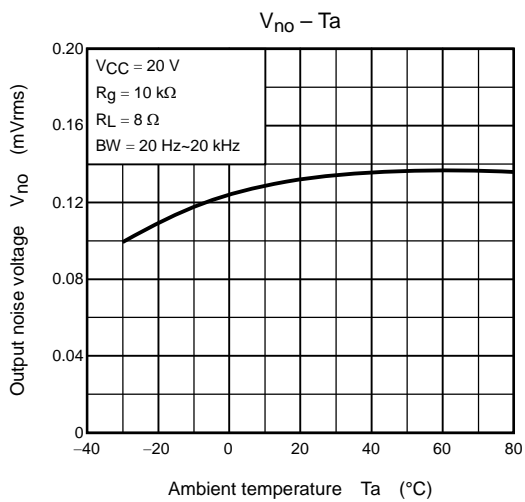
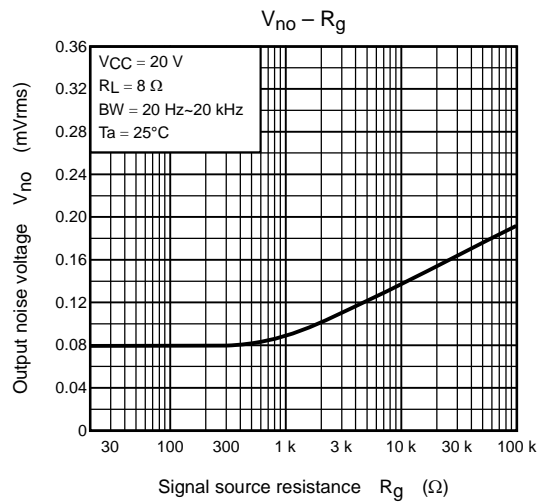
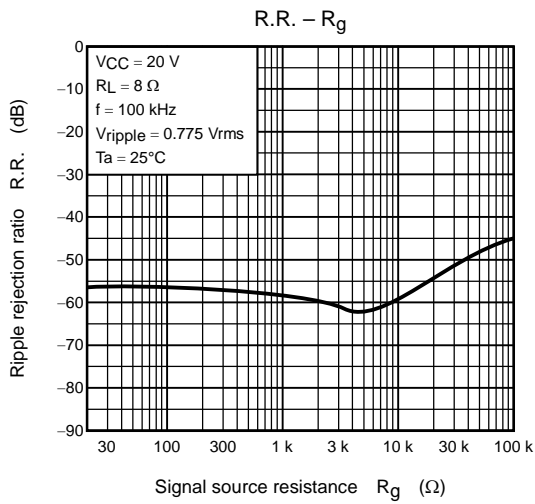
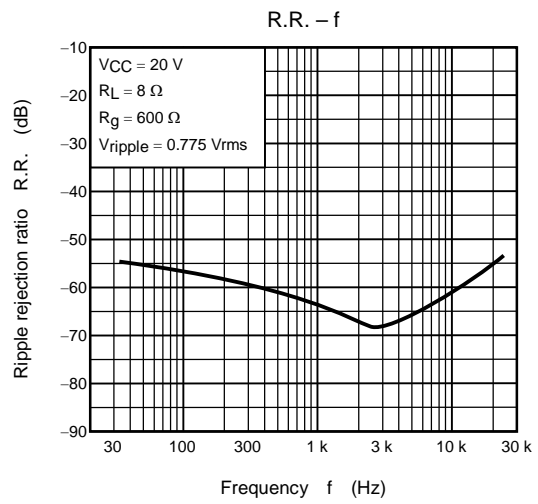
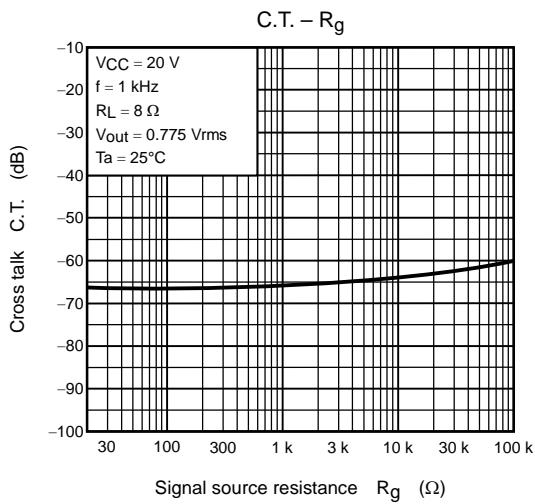
Test Circuit

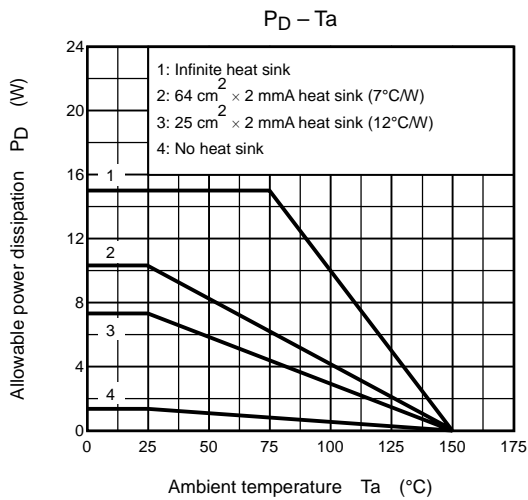
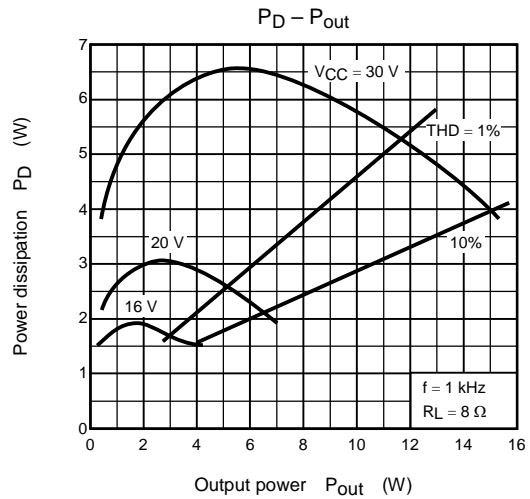
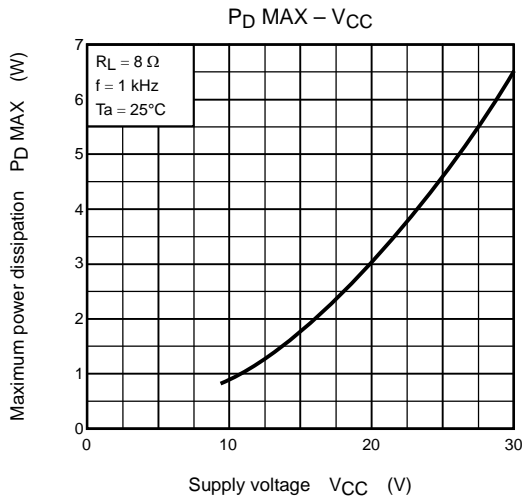
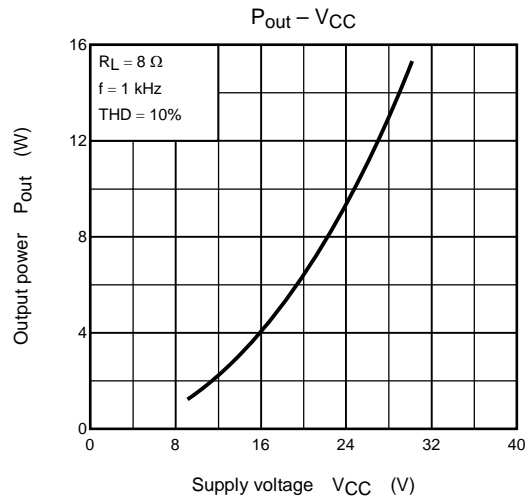
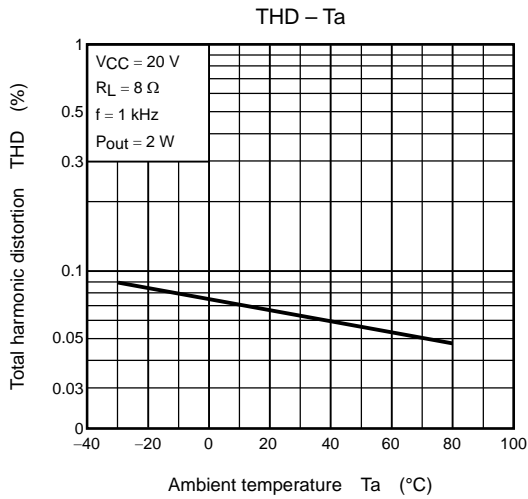


Cautions

This IC is not proof enough against a strong E-M field by CRT which may cause malfunction such as leak. Please set the IC keeping the distance from CRT.



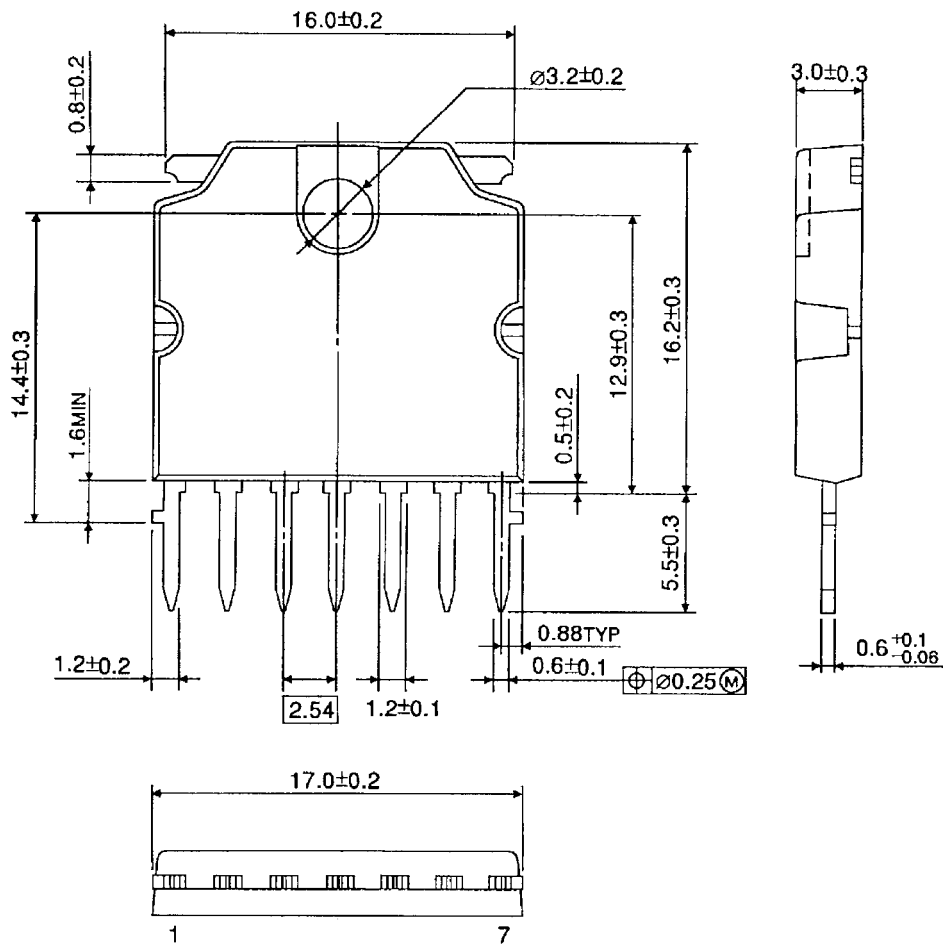




Package Dimensions

HSIP7-P-2.54B

Unit : mm



Weight: 2.19 g (typ.)

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