

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA8256H**AUDIO POWER AMPLIFIER 6W×3CH**

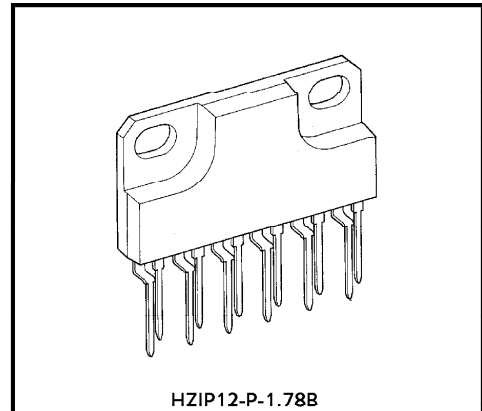
The TA8256H is 3 channel audio power amplifier for Consumer applications.

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

It is suitable for power amplifier of TV and home Stereo.

FEATURES

- Built-in 3ch Amplifier
- High Output Power
: $P_{out} = 6W$ (Typ.)
($V_{CC} = 20V$, $R_L = 8\Omega$, $f = 1kHz$, $THD = 10\%$)
- Built-in Audio Muting Circuit.
- NF Terminal Capacitor Less
: Fixed Gain ($G_V = 34dB$), Needless External capacitor.
- Protectors
Thermal shut down Protection circuit, Over Voltage Protection circuit
- Low Popping Noise
- High THD Ratio
- High input dynamic range
- Available for using same PCB layout with 2 channel IC : TA8246H.
- Operating Supply Voltage Range
: $V_{CC} (opr) = 10\sim 30V$ ($T_a = 25^\circ C$)



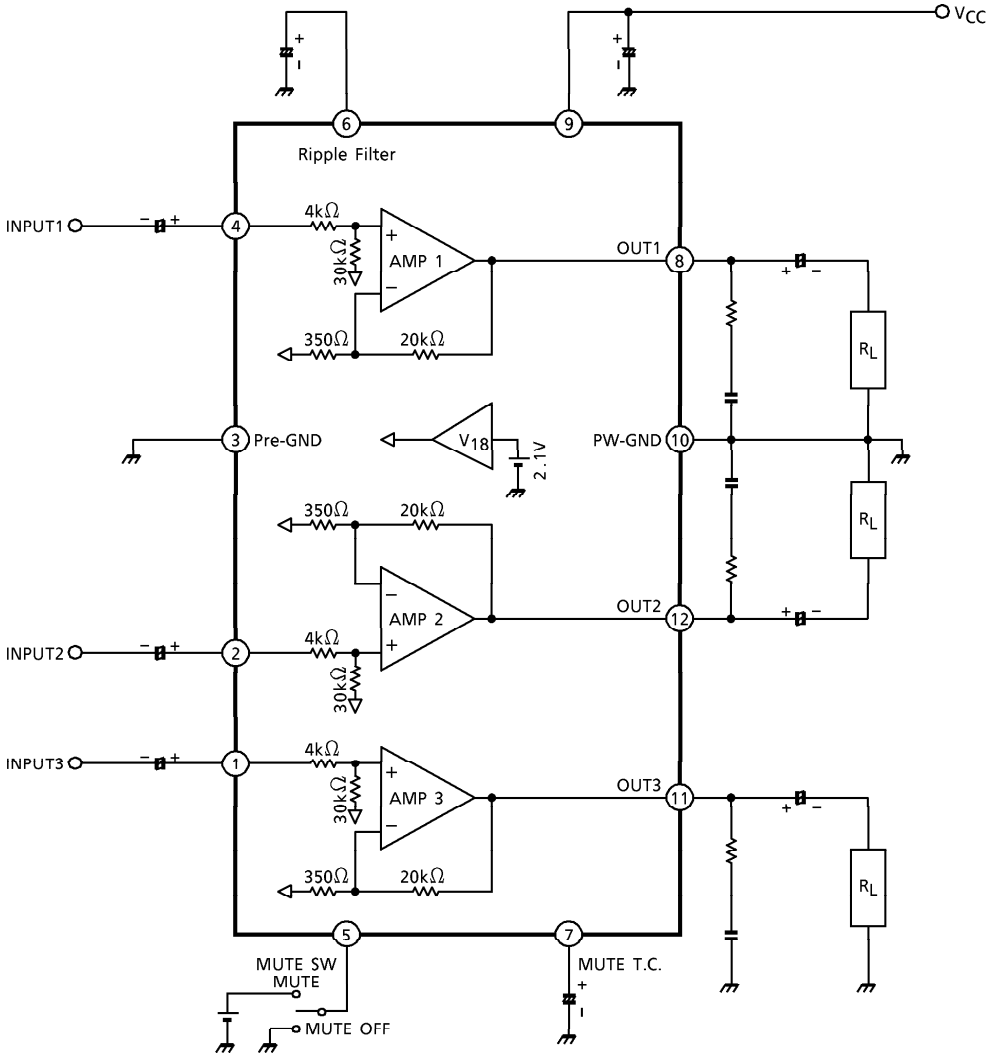
HZIP12-P-1.78B

Weight : 4.04g (Typ.)

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BLOCK DIAGRAM



TERMINAL EXPLANATION

TERMINAL No.	SYMBOL	FUNCTION	EQUIVALENT CIRCUIT
1	IN3	Input	
2	IN2		
4	IN1		
3	Pre-GND	GND terminal	—
5	MUTE. SW	MUTE control terminal	
7	MUTE. T.C		
6	RF	Ripple filter	
8	OUT1	Output	
11	OUT3		
12	OUT2		
9	VCC	Supply voltage terminal	—
10	PW-GND	GND terminal	—

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	30	V
Output Current (Peak/Ch)	I _O (peak)	2	A
Power Dissipation	P _D (Note)	25	W
Operating Temperature	T _{opr}	- 20~75	°C
Storage Temperature	T _{stg}	- 55~150	°C

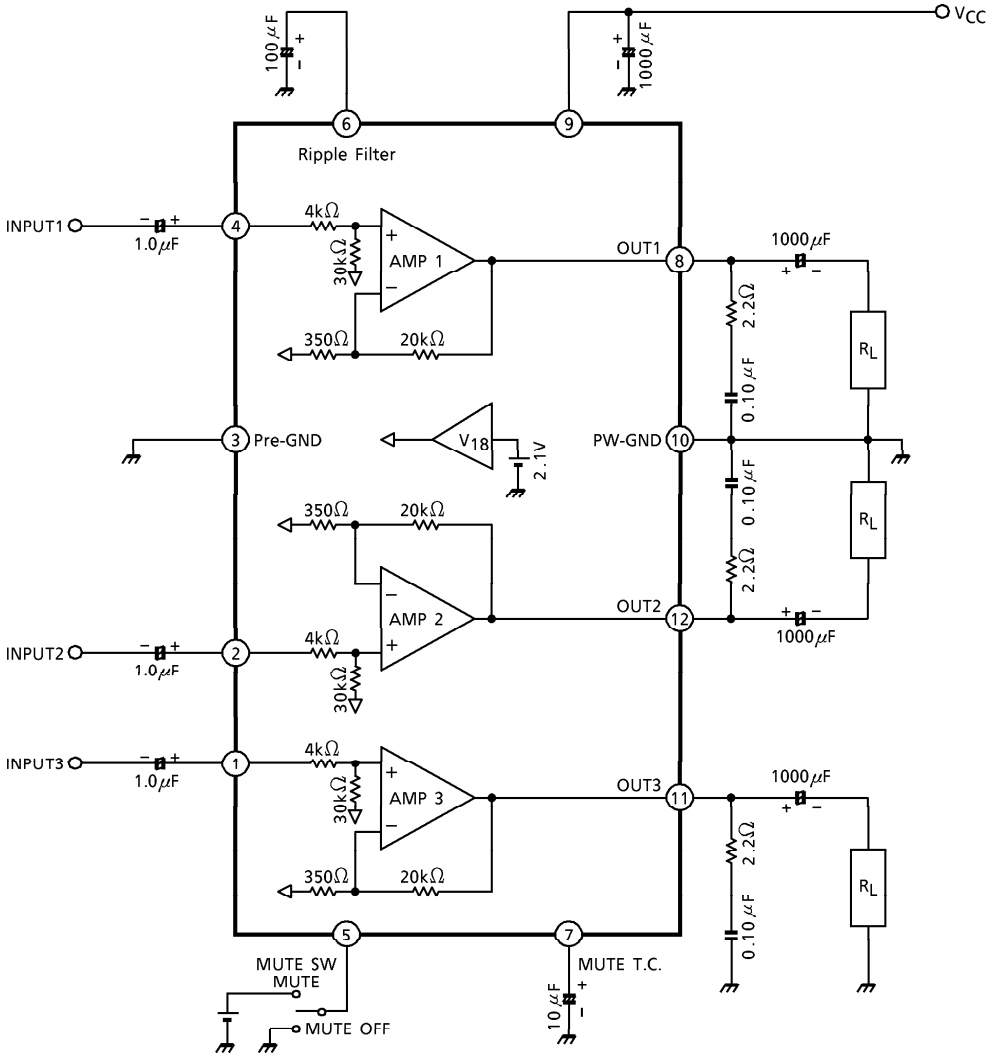
(Note) Derated above Ta = 25°C in the proportion of 200mW/°C.

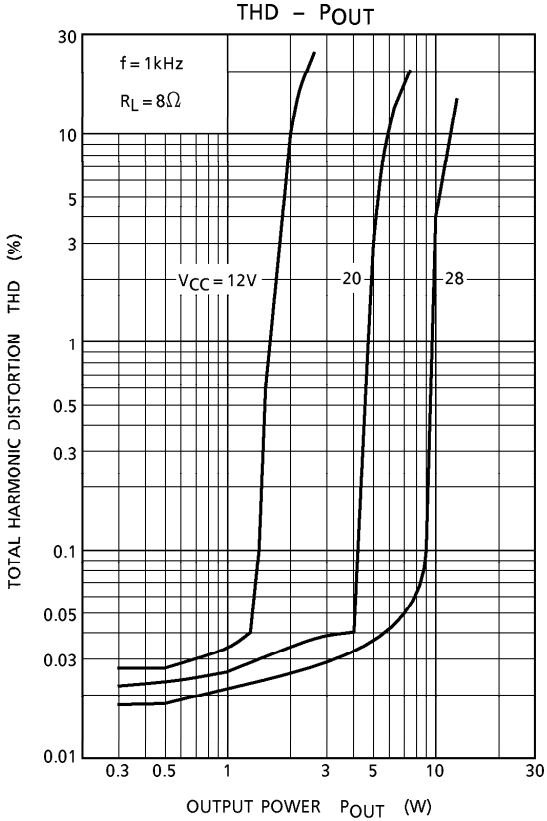
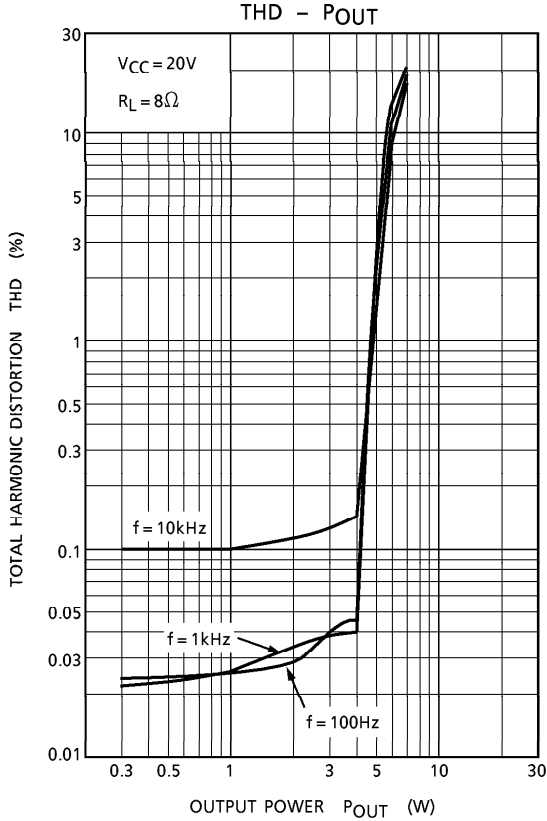
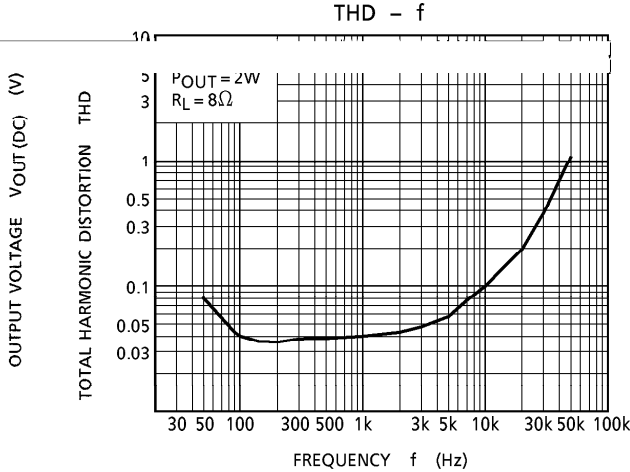
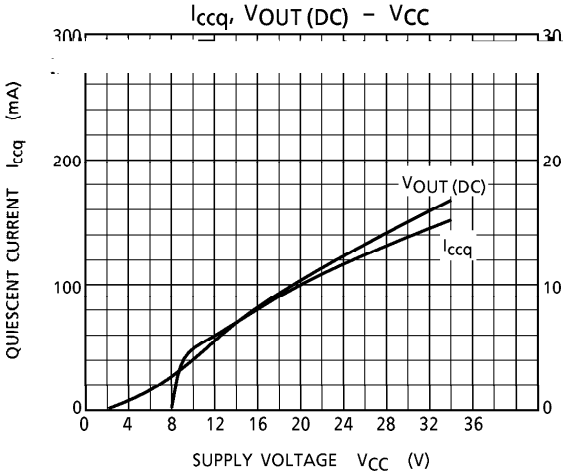
ELECTRICAL CHARACTERISTICS

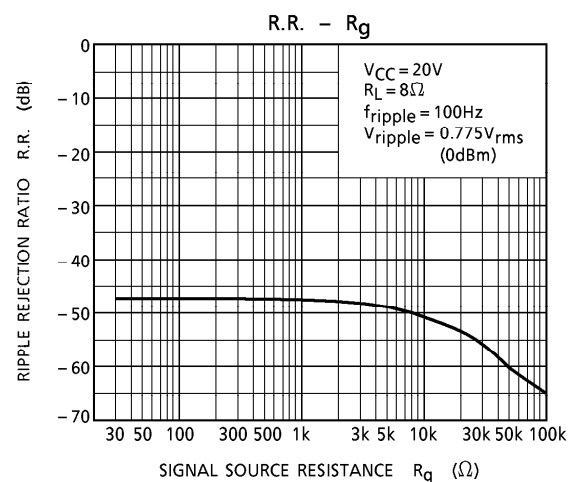
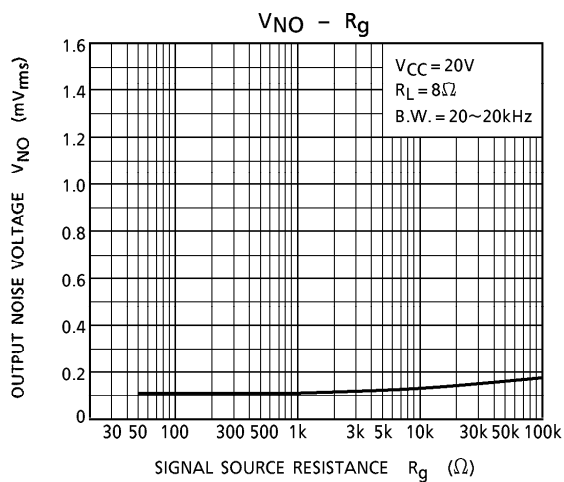
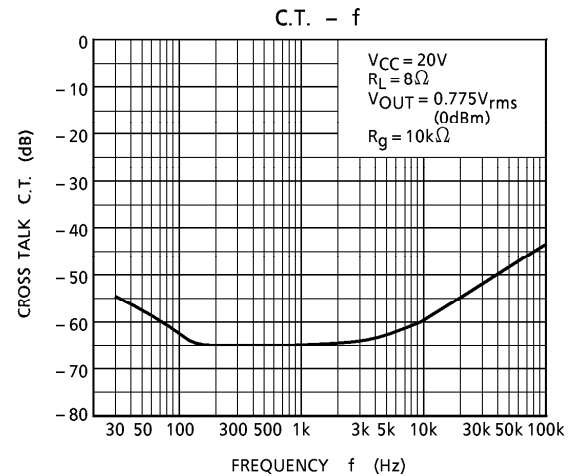
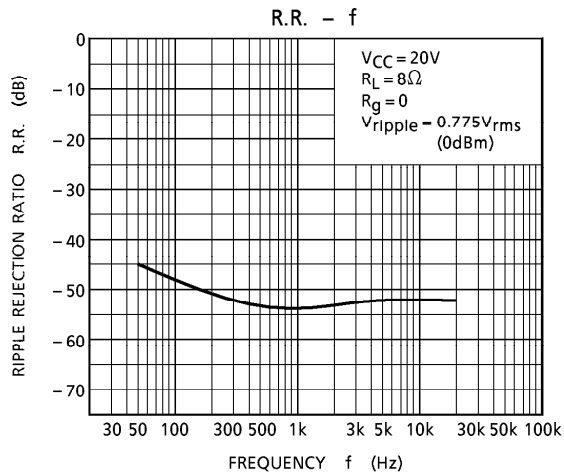
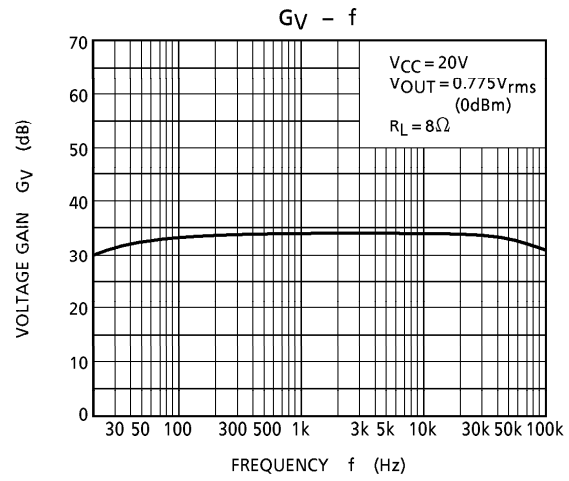
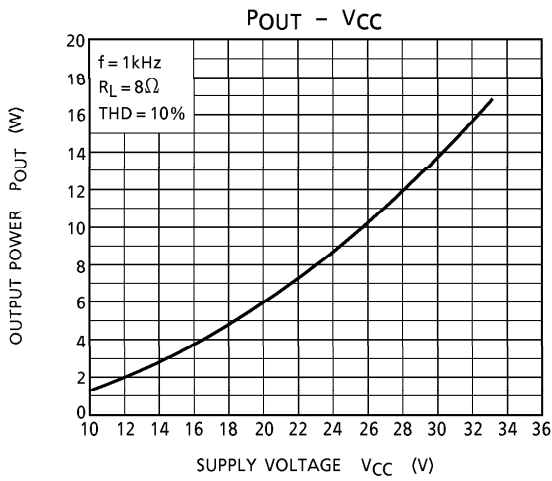
(Unless otherwise specified, V_{CC} = 20V, R_L = 8Ω, R_G = 620Ω, f = 1kHz, Ta = 25°C)

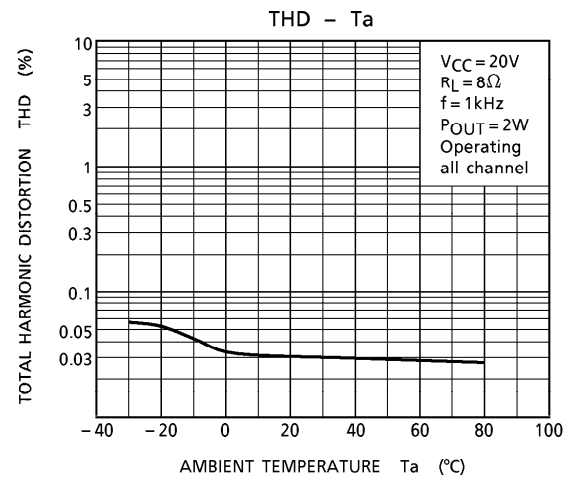
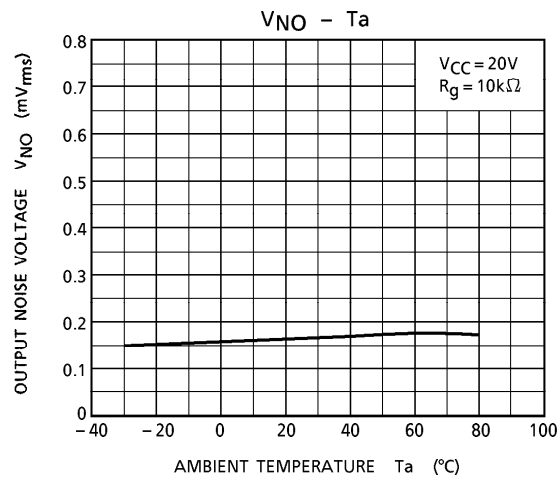
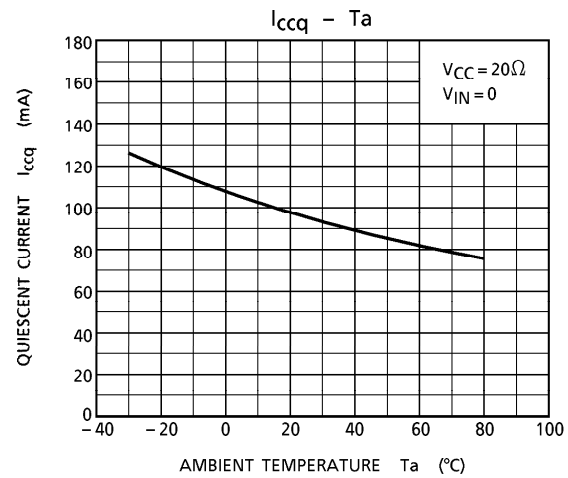
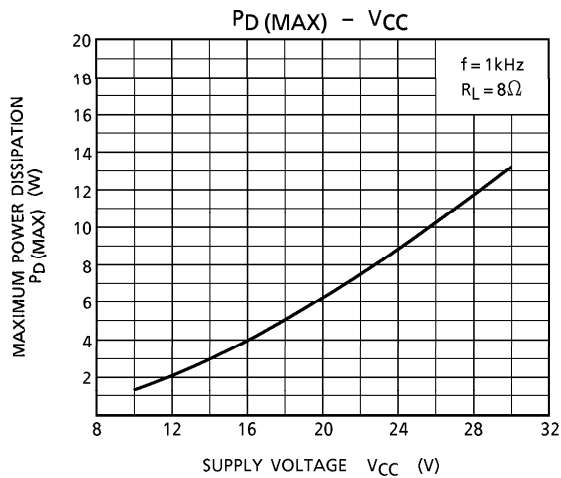
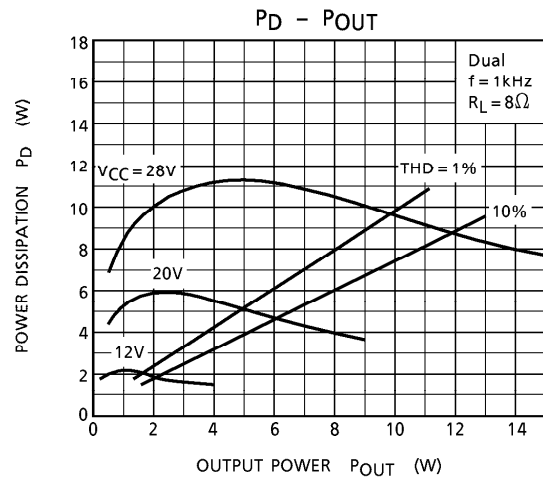
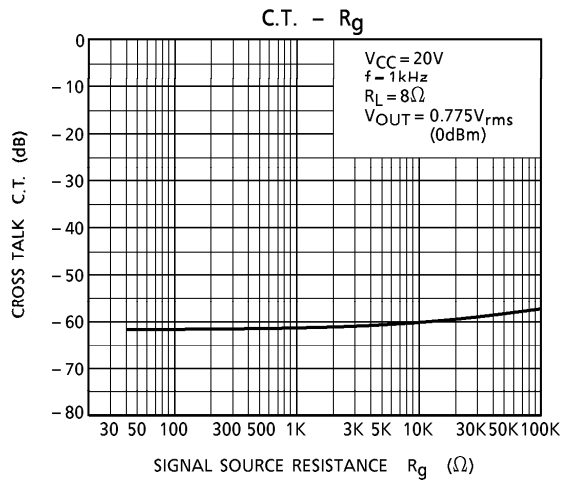
CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	I _{ccq}	—	V _{in} = 0	65	100	180	mA
Output Power	P _{out} (1)	—	THD = 10%	5	6	—	W
	P _{out} (2)	—	THD = 1%	—	4.5	—	
Total Harmonic Distortion	THD (1)	—	P _{out} = 2W	—	0.04	0.2	%
	THD (2)	—	P _{out} = 2W, f = 10kHz	—	0.1	0.6	
Voltage Gain	G _V	—	V _{out} = 0.775V _{rms}	32.5	34	35.5	dB
Input Resistance	R _{in}	—	—	—	34	—	kΩ
Ripple Rejection Ratio	R.R.	—	f = 100Hz V _{ripple} = 0.775V _{rms}	- 40	- 47	—	dB
Output Noise Voltage	V _{no}	—	R _G = 10kΩ BW = 20Hz~20kHz	—	0.14	0.3	mV _{rms}
Cross Talk	C.T.	—	V _{out} = 0.775V _{rms}	—	- 60	—	dB
Mute Control Voltage	V _{th} (ON)	—	MUTE ON	3.1	—	V _{CC}	V
	V _{th} (OFF)	—	MUTE OFF	0	—	2.5	
Mute Attenuation Level	ATT	—	V _{out} = 0.775V _{rms} → MUTE	- 52	- 60	—	dB

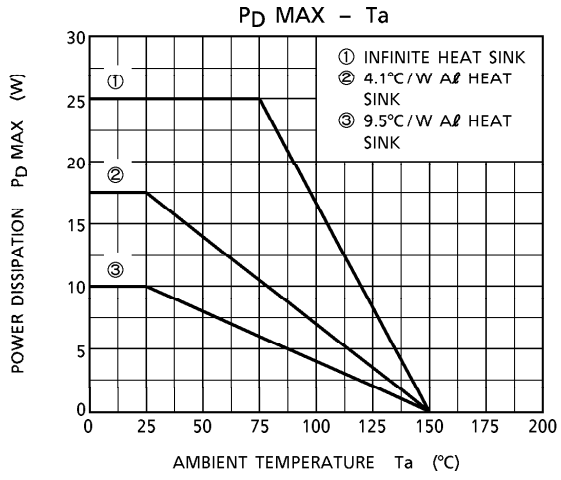
TEST CIRCUIT





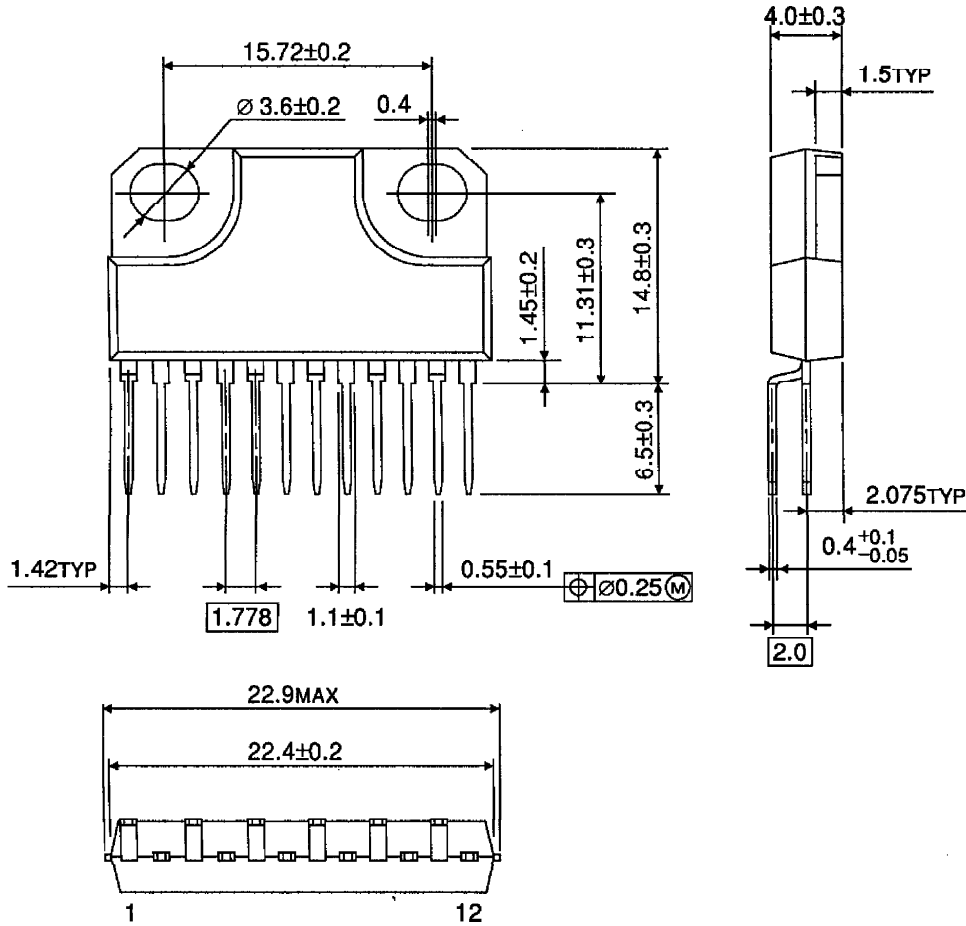






OUTLINE DRAWING
HZIP12-P-1.78B

Unit : mm



Weight : 4.04g (Typ.)