

# TA8246H

## DUAL AUDIO POWER AMPLIFIER 6W×2CH

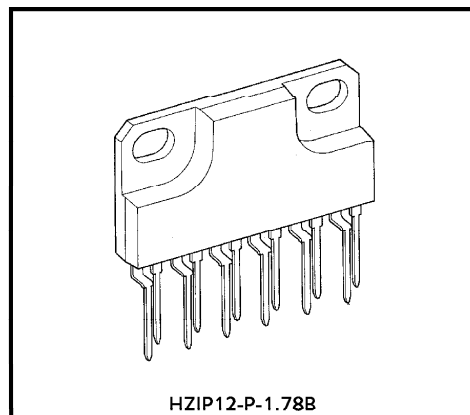
The TA8246H is dual power amplifier for Consumer applications.

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

- 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 3 channel IC : TA8256H.
- Operating Supply Voltage Range
  - :  $V_{CC} (opr) = 10 \sim 30V$  ( $T_a = 25^\circ C$ )

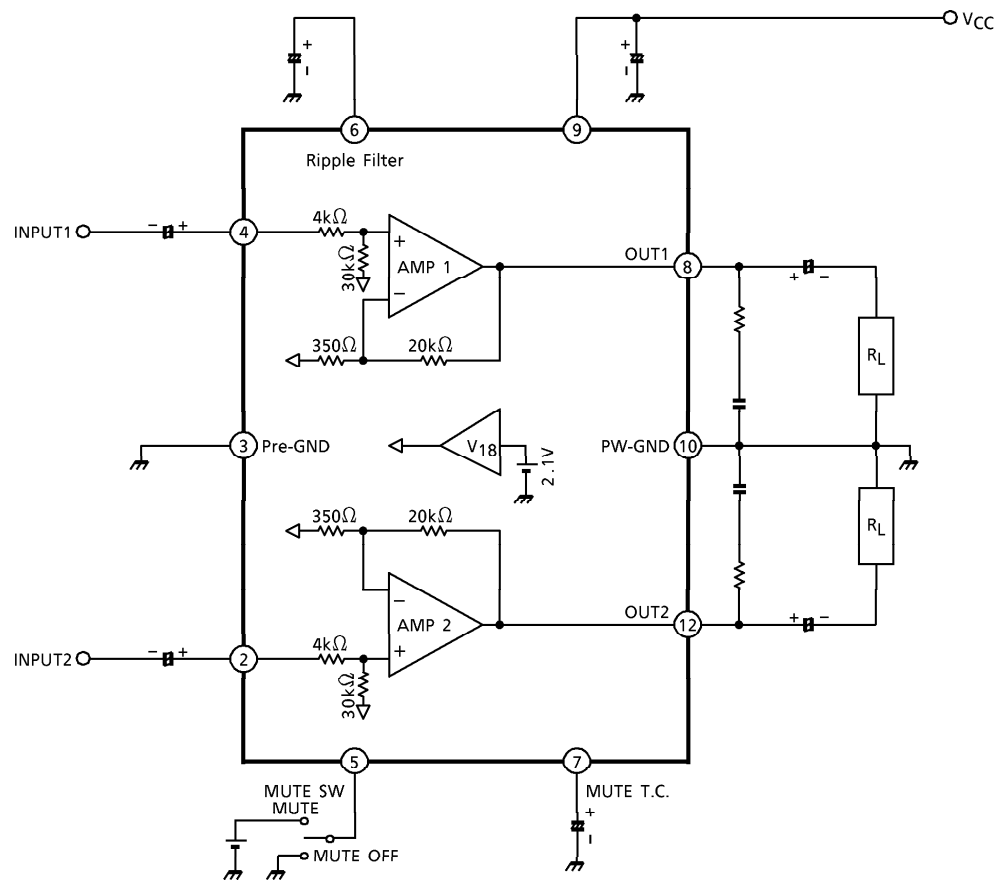


Weight : 4.04g (Typ.)

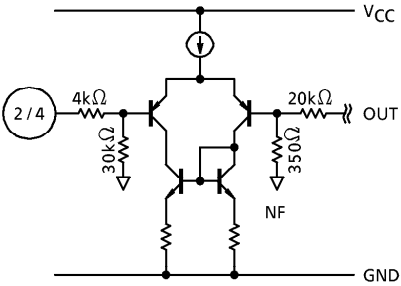
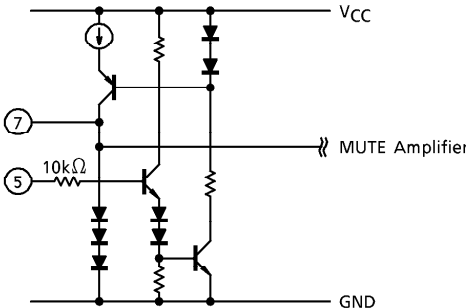
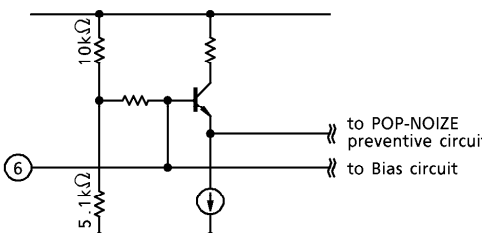
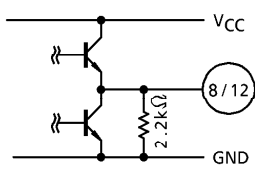
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BLOCK DIAGRAM



TERMINAL EXPLANATION

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

①, ⑪ : N.C

**MAXIMUM RATINGS** (Ta = 25°C)

| CHARACTERISTIC             | SYMBOL                | RATING   | UNIT |
|----------------------------|-----------------------|----------|------|
| Supply Voltage             | V <sub>CC</sub>       | 30       | V    |
| Output Current (Peak / Ch) | I <sub>O</sub> (peak) | 2        | A    |
| Power Dissipation          | P <sub>D</sub> (Note) | 25       | W    |
| Operating Temperature      | T <sub>opr</sub>      | – 20~75  | °C   |
| Storage Temperature        | T <sub>stg</sub>      | – 55~150 | °C   |

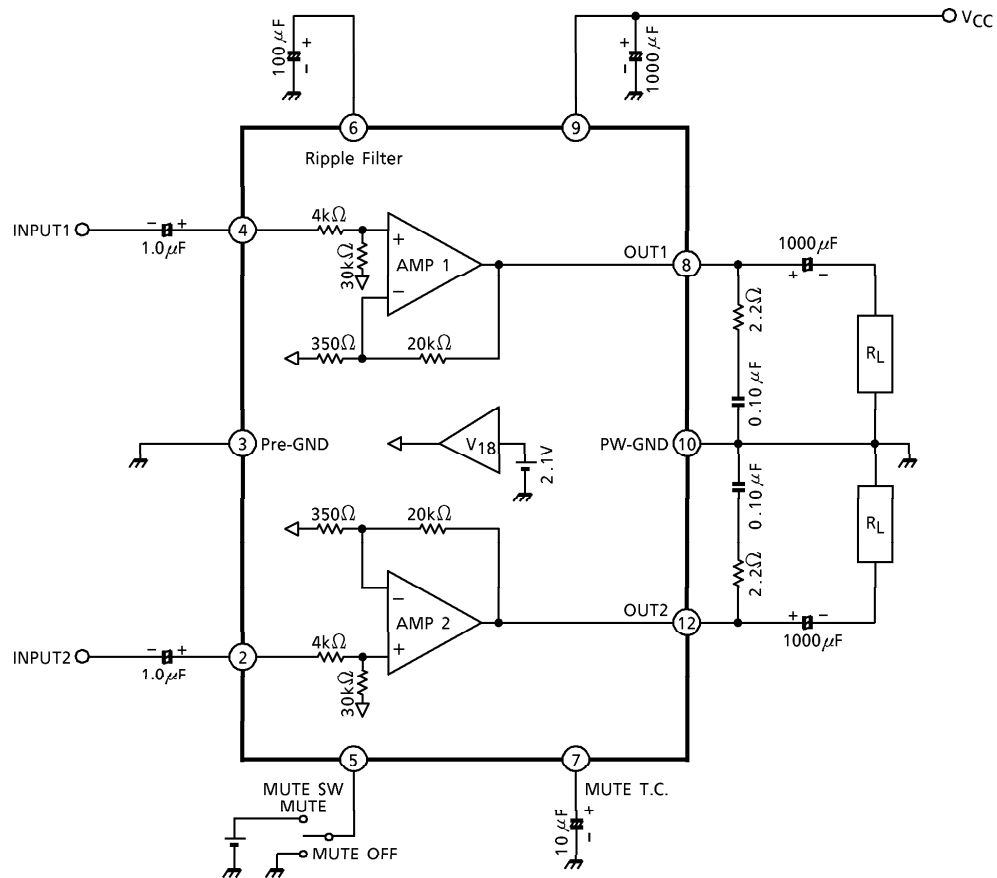
(Note) Derated above Ta = 25°C in the proportion of 200mW / °C.

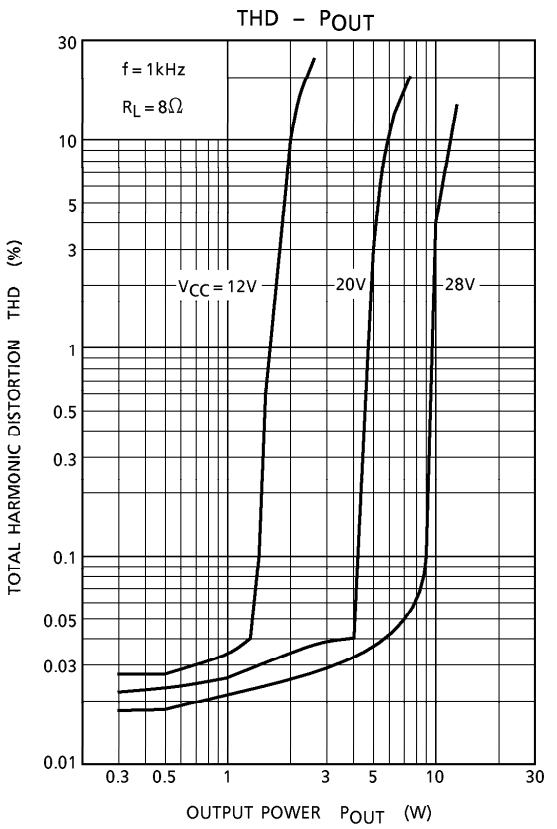
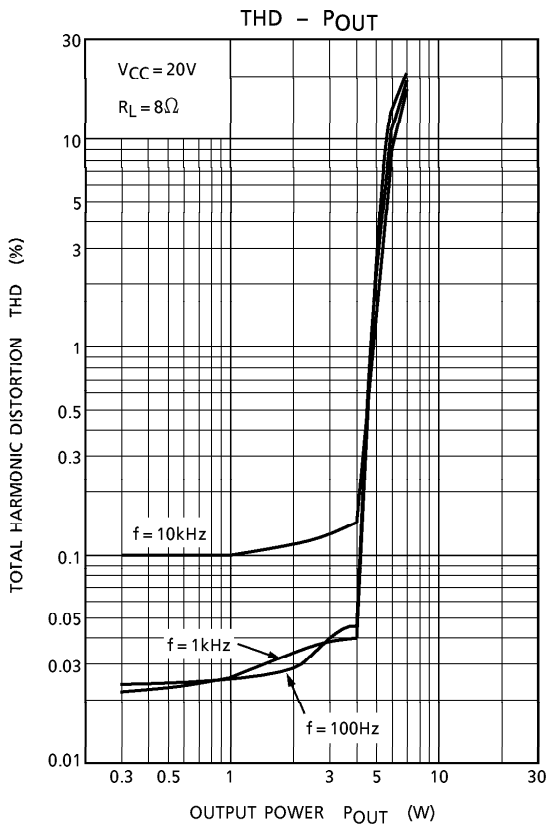
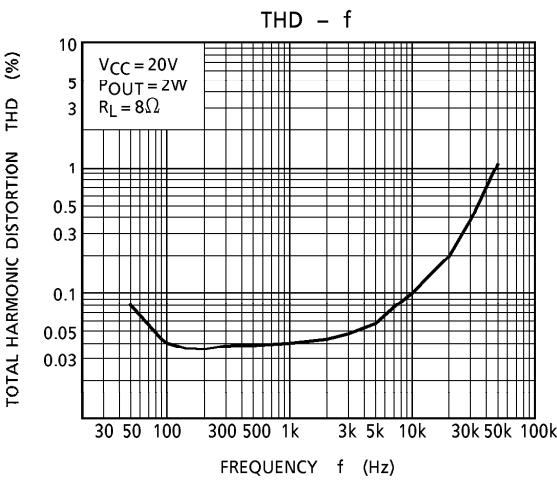
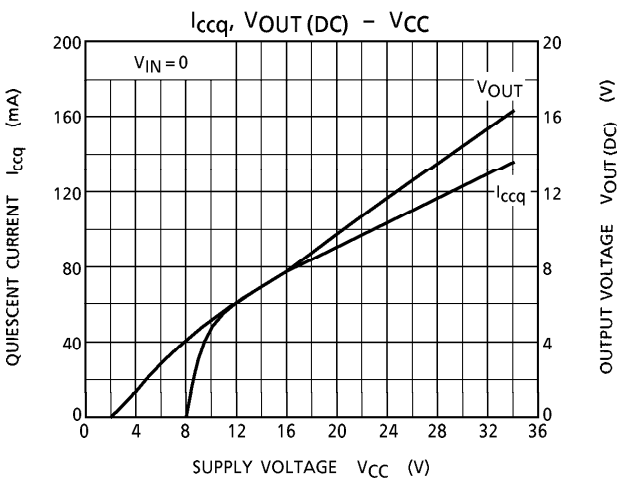
**ELECTRICAL CHARACTERISTICS**

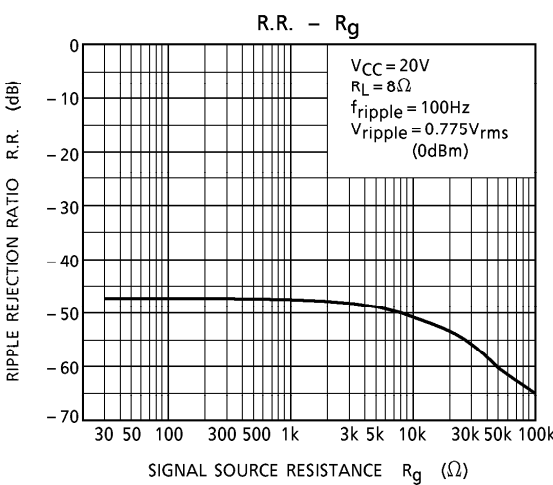
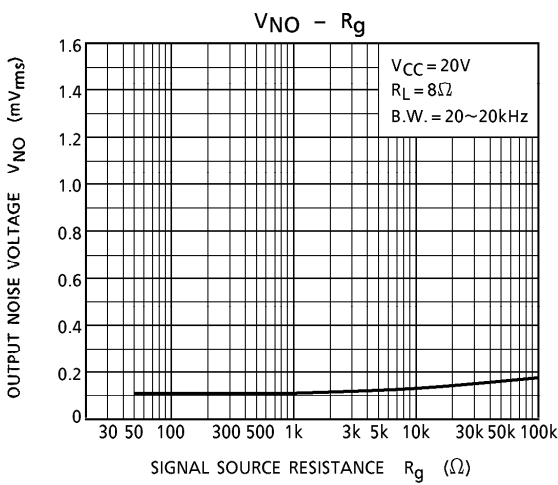
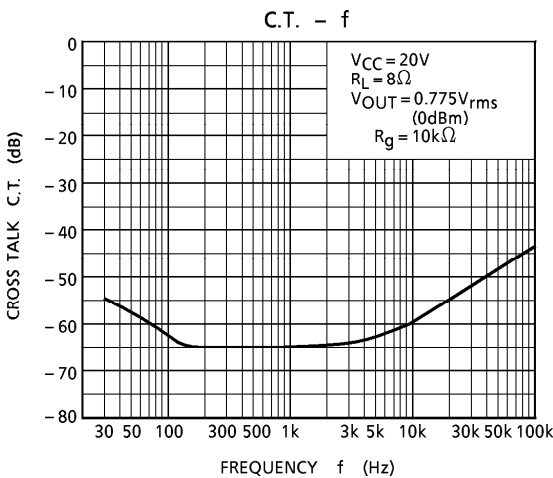
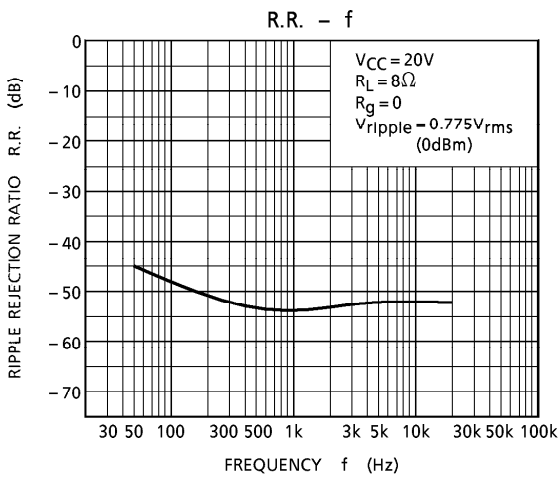
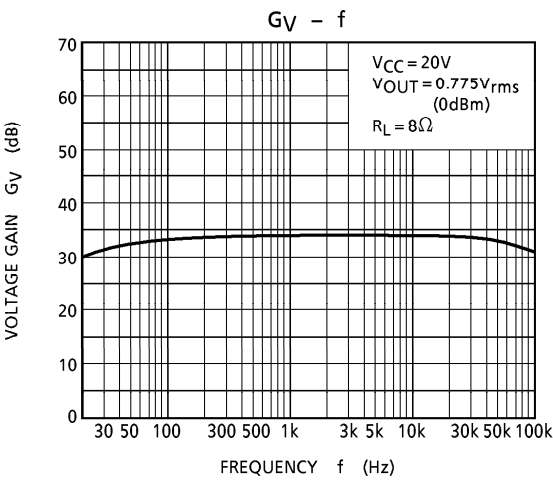
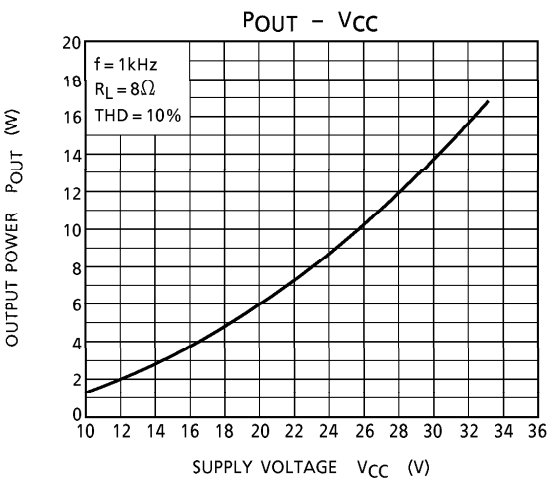
(Unless otherwise specified, V<sub>CC</sub> = 20V, R<sub>L</sub> = 8Ω, R<sub>g</sub> = 620Ω, f = 1kHz, Ta = 25°C)

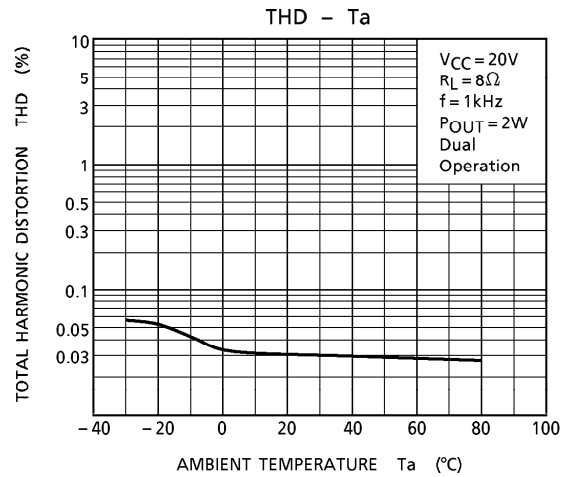
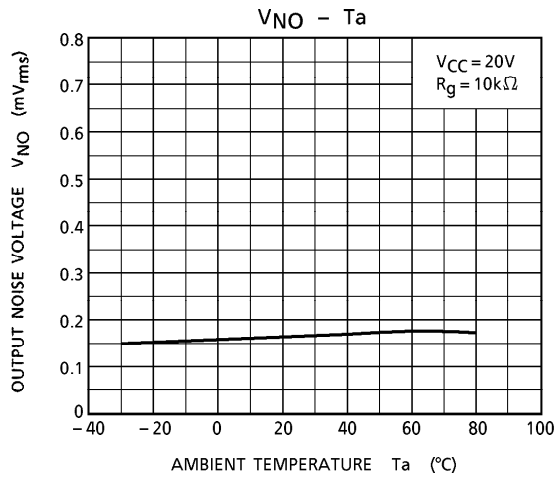
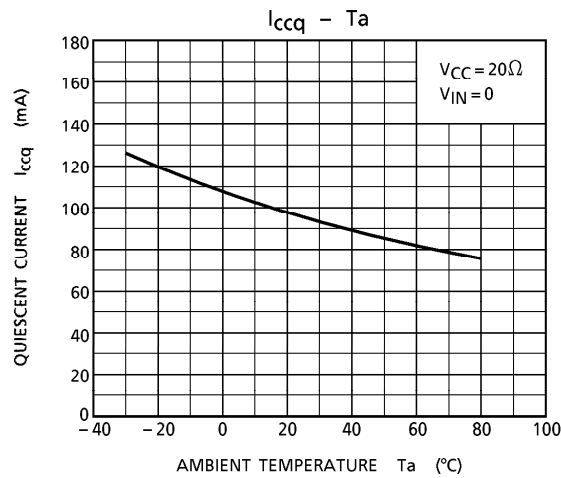
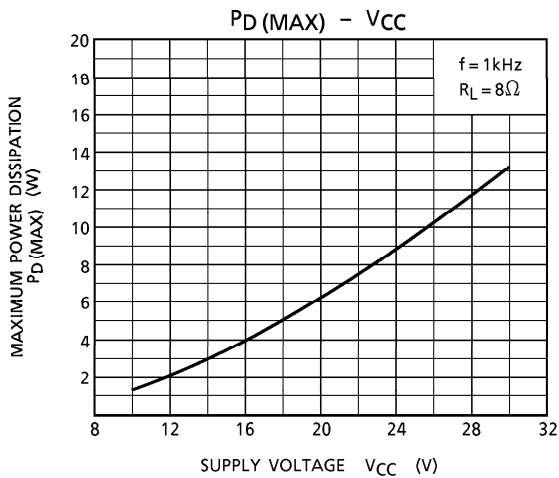
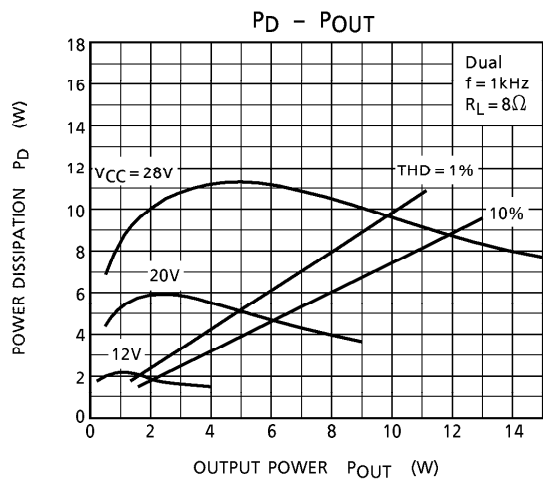
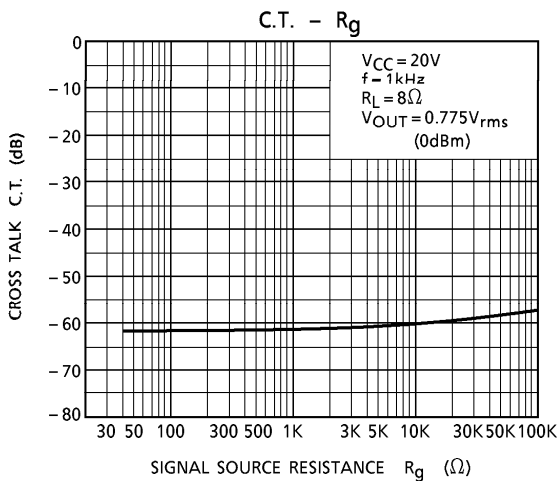
| CHARACTERISTIC            | SYMBOL                | TEST CIRCUIT | TEST CONDITION                                                  | MIN. | TYP. | MAX.            | UNIT              |
|---------------------------|-----------------------|--------------|-----------------------------------------------------------------|------|------|-----------------|-------------------|
| Quiescent Current         | ICCQ                  | —            | V <sub>in</sub> = 0                                             | 50   | 85   | 130             | mA                |
| Output Power              | P <sub>out</sub> (1)  | —            | THD = 10%                                                       | 5.0  | 6.0  | —               | W                 |
|                           | P <sub>out</sub> (2)  | —            | THD = 1%                                                        | —    | 4.5  | —               |                   |
| Total Harmonic Distortion | THD (1)               | —            | P <sub>out</sub> = 2W                                           | —    | 0.04 | 0.2             | %                 |
|                           | THD (2)               | —            | P <sub>out</sub> = 2W, f = 10kHz                                | —    | 0.1  | 0.6             |                   |
| Voltage Gain              | G <sub>v</sub>        | —            | V <sub>out</sub> = 0.775V <sub>rms</sub>                        | 32.5 | 34.0 | 35.5            | dB                |
| Input Resistance          | R <sub>in</sub>       | —            |                                                                 | —    | 34   | —               | kΩ                |
| Ripple Rejection Ratio    | R.R.                  | —            | f = 100Hz                                                       | – 40 | – 47 | —               | dB                |
| Output Noise Voltage      | V <sub>no</sub>       | —            | R <sub>g</sub> = 10kΩ, BW = 20Hz~20kHz                          | —    | 0.14 | 0.3             | mV <sub>rms</sub> |
| Cross Talk                | C.T.                  | —            | R <sub>g</sub> = 10kΩ, V <sub>out</sub> = 0.775V <sub>rms</sub> | —    | – 60 | —               | dB                |
| Mute Control Voltage      | V <sub>th</sub> (ON)  | —            | MUTE ON                                                         | 3.1  | —    | V <sub>CC</sub> | V                 |
|                           | V <sub>th</sub> (OFF) | —            | MUTE OFF                                                        | 0    | —    | 2.5             |                   |
| Mute Attenuation Level    | ATT                   | —            | V <sub>out</sub> = 0.775V <sub>rms</sub> → MUTE                 | – 52 | – 60 | —               | dB                |

## TEST CIRCUIT

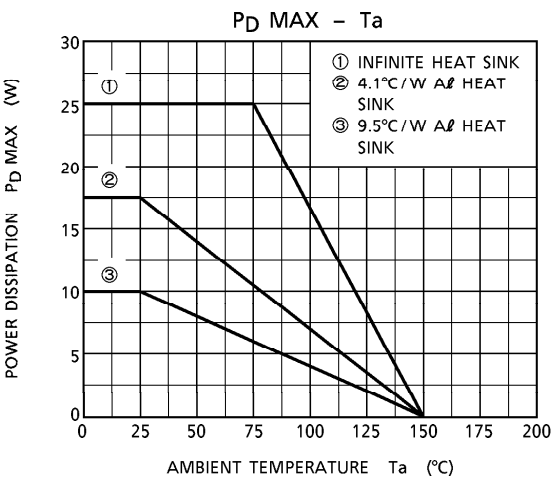






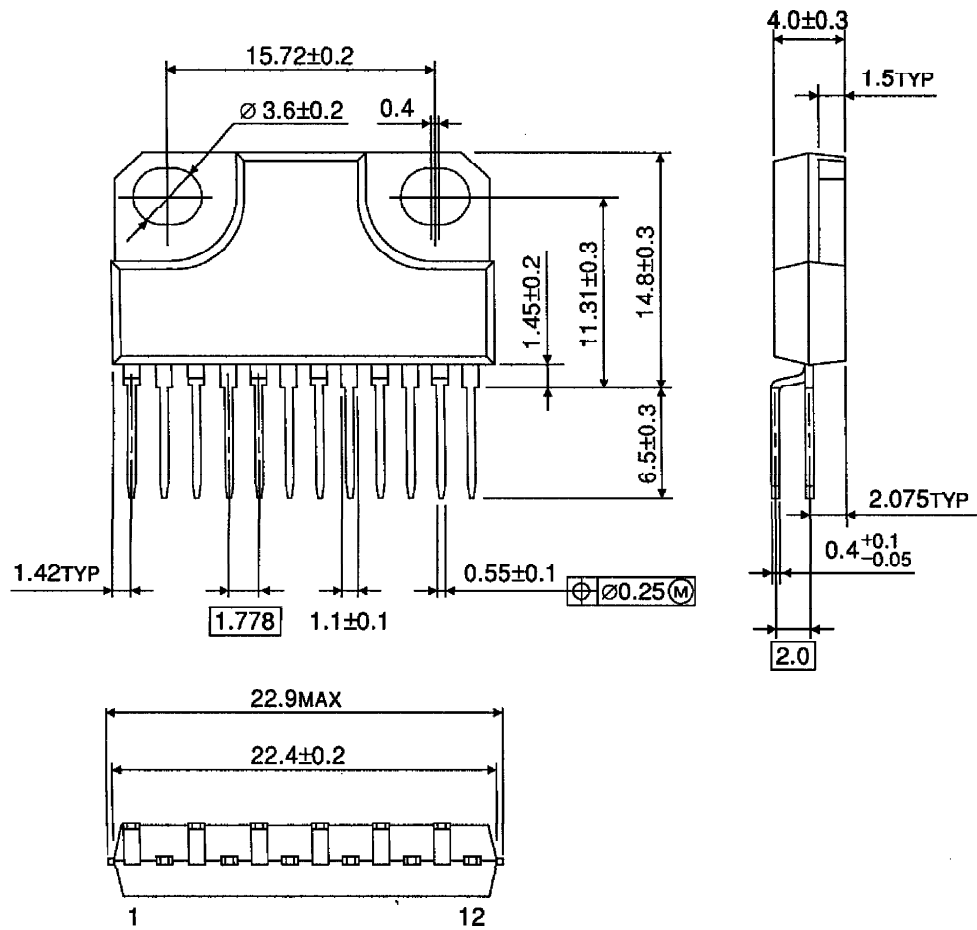






OUTLINE DRAWING  
HZIP12-P-1.78B

Unit : mm



Weight : 4.04g (Typ.)