TOSHIBA Bipolar Linear Integrated Circuit Silicon Monolithic

# TA8272H

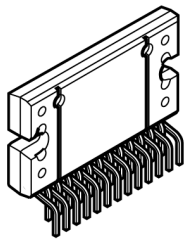
## Max Power 43 W BTL × 4 ch Audio Power IC

The TA8272H is 4 ch BTL audio power amplifier for car audio application.

This IC can generate more high power: $P_{OUT}MAX$ = 43 W as it is included the pure complementary PNP and NPN transistor output stage.

It is designed low distortion ratio for 4 ch BTL audio power amplifier, built-in stand-by function, muting function, and diagnosis circuit which can detect output to $V_{CC}$/GND short, output offset voltage and over voltage input mode.

Additionally, the AUX amplifier and various kind of protector for car audio use is built-in.



HZIP25-P-1.00F

Weight: 7.7 g (typ.)

## Features

- High power : $P_{OUT}MAX$ (1) = 43 W (typ.)
  ($V_{CC}$ = 14.4 V, f = 1 kHz, JEITA max, $R_L$ = 4 Ω)
  : $P_{OUT}MAX$ (2) = 40 W (typ.)
  ($V_{CC}$ = 13.7 V, f = 1 kHz, JEITA max, $R_L$ = 4 Ω)
  : $P_{OUT}$ (1) = 28 W (typ.)
  ($V_{CC}$ = 14.4 V, f = 1 kHz, THD = 10%, $R_L$ = 4 Ω)
  : $P_{OUT}$ (2) = 24 W (typ.)
  ($V_{CC}$ = 13.2 V, f = 1 kHz, THD = 10%, $R_L$ = 4 Ω)
- Built-in diagnosis circuit (pin 25)
- Low distortion ratio: THD = 0.02% (typ.)
  ($V_{CC}$ = 13.2 V, f = 1 kHz, $P_{OUT}$ = 5 W, $R_L$ = 4 Ω)
- Low noise: $V_{NO}$ = 0.10 mVrms (typ.)
  ($V_{CC}$ = 13.2 V, $R_g$ = 0 Ω, $G_V$ = 26dB, BW = 20 Hz~20 kHz)
- Built-in stand-by switch function (pin 4)
- Built-in muting function (pin 22)
- Built-in AUX amplifier from single input to 4 channels output (pin 16)
- Built-in various protection circuit
  : Thermal shut down, over voltage, out to GND, out to $V_{CC}$, out to out short
- Operating supply voltage: $V_{CC\ (opr)}$ = 9~18 V

## Block Diagram