

TB2926CHQ

49 W × 4-ch BTL Audio Power IC

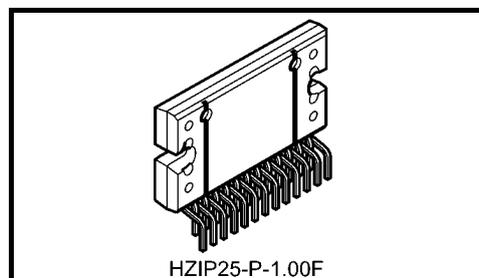
The TB2926CHQ is a four-channel BTL power amplifier for car audio applications.

This IC has a pure complementary P-ch and N-ch DMOS output stage, offering maximum output power ($P_{OUT\ MAX}$) of 49 W.

It includes a standby switch, mute function and various protection features.

Features

- High output power
 - $P_{OUT\ MAX}\ (1) = 49\ W\ (typ.)$
($V_{CC} = 15.2\ V, f = 1\ kHz, JEITA\ max, R_L = 4\ \Omega$)
 - $P_{OUT\ MAX}\ (2) = 43\ W\ (typ.)$
($V_{CC} = 14.4\ V, f = 1\ kHz, JEITA\ max, R_L = 4\ \Omega$)
 - $P_{OUT}\ (1) = 26\ W\ (typ.)$
($V_{CC} = 14.4\ V, f = 1\ kHz, THD = 10\%, R_L = 4\ \Omega$)
 - $P_{OUT}\ (2) = 23\ W\ (typ.)$
($V_{CC} = 13.2\ V, f = 1\ kHz, THD = 10\%, R_L = 4\ \Omega$)
- Low THD: 0.007% (typ.) ($V_{CC} = 13.2\ V, f = 1\ kHz, P_{OUT} = 5\ W, R_L = 4\ \Omega$)
- Low noise: $V_{NO} = 60\ \mu V_{rms}$ (typ.)
($V_{CC} = 13.2\ V, R_g = 0\ \Omega, BW = 20\ Hz\ to\ 20\ kHz, R_L = 4\ \Omega$)
- Standby switch (pin 4)
- Mute function (pin 22)
- Output DC offset detection (pin 25)
- Various protection features
Thermal overload; overvoltage; output short-circuits to GND, V_{CC} and across the load; speaker current limiting
- Operating supply voltage: $V_{CC}\ (opr) = 8.0\ to\ 18\ V\ (R_L = 4\ \Omega)$



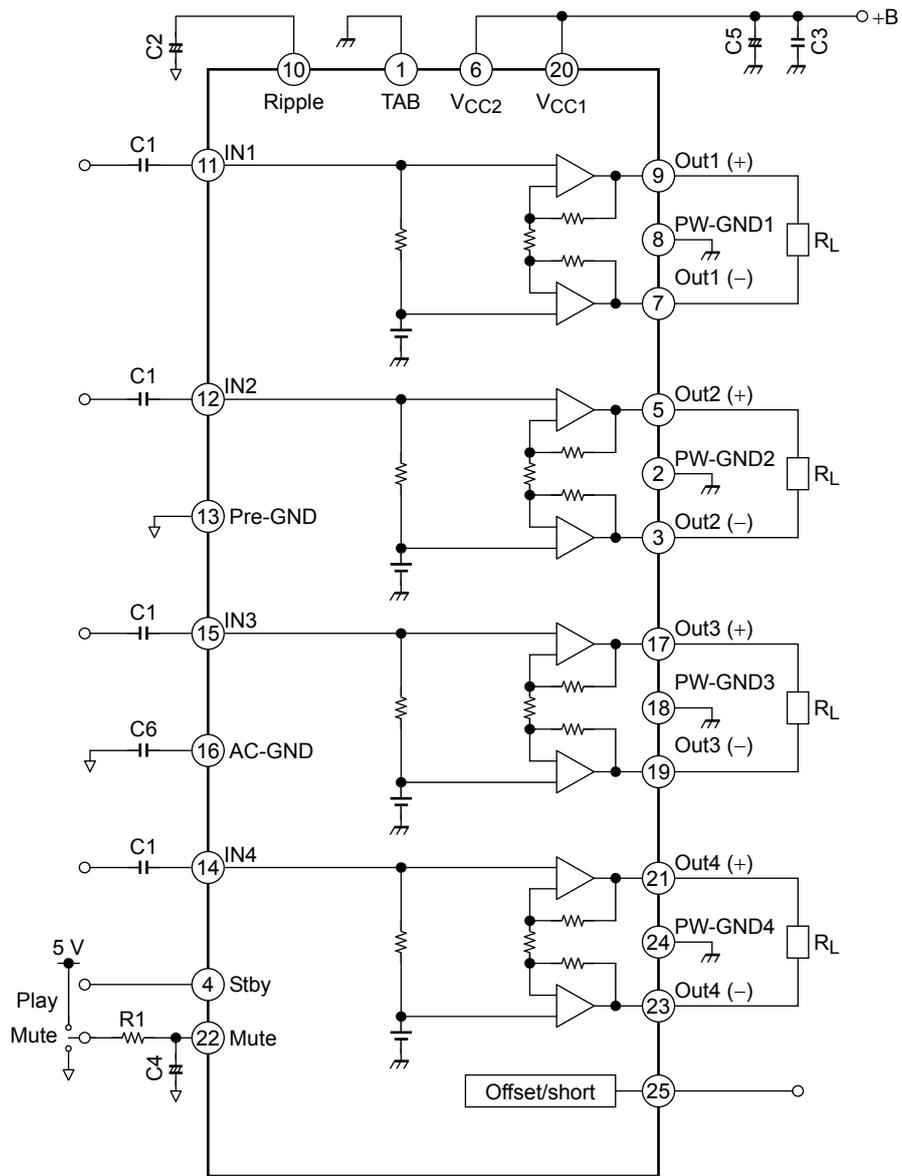
Weight: 7.7 g (typ.)

Note 1: Install the device correctly. Otherwise, the device or system may be degraded, damaged or even destroyed.

Note 2: The protection features are intended to avoid output short-circuits or other abnormal conditions temporarily. It is not guaranteed that they will prevent the IC from being damaged.

Exposure to conditions beyond the guaranteed operating ranges may not activate the protection features, resulting in an IC damage due to output short-circuits.

Block Diagram



Some of the functional blocks, circuits or constants may be omitted from the block diagram or simplified for explanatory purposes.