



# SANYO Semiconductors DATA SHEET

## LA6548 — Monolithic Linear IC 4CH Bridge (BTL) Driver for CD

### Overview

The LA6548 is a 4CH bridge (BTL) driver with built-in 3.3VREG and RESET for CD players.

### Functions

- Bridge connection (BTL) POWER AMP 4CH.
- Provides MUTE function (Activate for all channels output. When MUTE is H, output is ON.)
- Built-in 3.3VREG (with external PNP transistor)
- Built-in RESET circuit (with external capacitor, RESET output delay time can be set.)

### Specifications

#### Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V <sub>CC</sub> max		14	V
Allowable operation	Pd max	*Measurement on the specific board	2.3	W
Maximum input voltage	V <sub>INB</sub>		13	V
MUTE pin voltage	V <sub>MUTE</sub>		13	V
Operating ambient temperature	T <sub>opr</sub>		-20 to +75	°C
Storage ambient temperature	T <sub>stg</sub>		-55 to +150	°C

\*Specific board size: 114.3mm × 76.1mm × 1.6mm, board material: glass epoxy resin.

#### Recommended Operating Conditions at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Operating voltage	V <sub>CC</sub>		4 to 13	V
RESET output SOURCE current	I <sub>ORH</sub>		0 to 200	μA
RESET output SINK current	I <sub>ORL</sub>		0 to 2	mA

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# LA6548

**Electrical Characteristics** at  $T_a = 25^\circ\text{C}$ ,  $V_{CC} = 6\text{V}$ ,  $V_{REF} = 1.65\text{V}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
[Whole]						
No-load current consumption 1	$I_{CC-ON}$	All channels output ON, MUTE; H		20	40	mA
No-load current consumption 2	$I_{CC-OFF}$	All channels output OFF, MUTE; L		15	35	mA
Output offset voltage	$V_{OFF}$	Each channel	-50		50	mV
BUFFER input voltage range	$V_{BIN}$	$V_{REF}$ BUFFER AMP input range	1.5		$V_{CC}-1.5$	V
Output voltage	$V_O$	$R_L = 8.0\Omega$ *1	2.6	3		V
Closed circuit voltage gain	$V_G$	Input/Output gain		9		dB
Slew rate	SR			0.15		V/ $\mu\text{s}$
MUTE ON voltage	$V_{MUTE}$	*2		1.2		V
[Power supply part] (2SB632K is used)						
Output voltage	$V_{OUT1}$	$I_O = 200\text{mA}$	3.13	3.3	3.47	V
Line regulation	$\Delta V_{OLN1}$	$4\text{V} \leq V_{CC} \leq 12\text{V}$		40	100	mV
Load regulation	$\Delta V_{OLD1}$	$5\text{mA} \leq I_O \leq 200\text{mA}$		50	150	mV
[Reset part]						
H reset output voltage	$V_{ORH}$	$I_{ORH} = 200\mu\text{A}$ , Pin open Cd	3.08	3.25	3.42	V
L reset output voltage	$V_{ORL}$	$I_{SRL} = 2\text{mA}$ , short circuit between Cd and GND.		100	200	mV
Reset threshold voltage	$V_{RT}$	*3	2.58	2.75	2.92	V
Reset hysteresis voltage	$V_{HYS}$	*4	40	80	160	mV
Reset output delay time	TD	Cd = $0.1\mu\text{F}$		10		ms

\*1. Output voltage differences when connecting the  $8\Omega$  load between outputs for each channels.

\*2. MUTE voltage when output is ON or OFF. When MUTE is H, all outputs are ON. When MUTE is L, all channels are OFF.

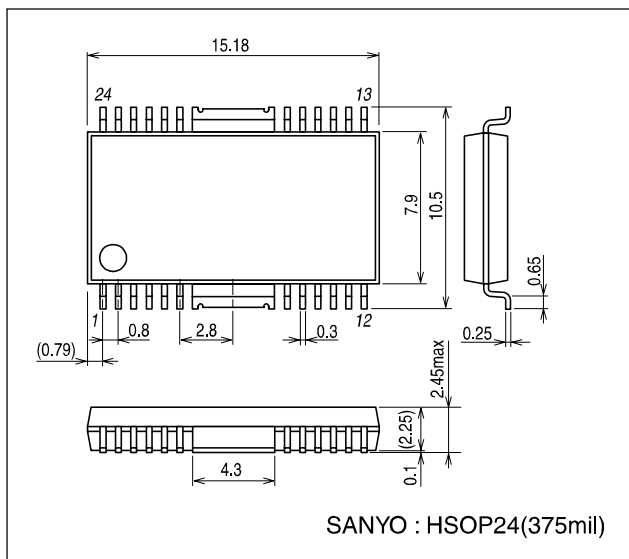
\*3. 3.3 VREG voltage when RESET is L.

\*4. 3.3 VREG voltage difference between RESET "L" and RESET "H".

## Package Dimensions

unit : mm

3227A



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