

SANYO

No.4035

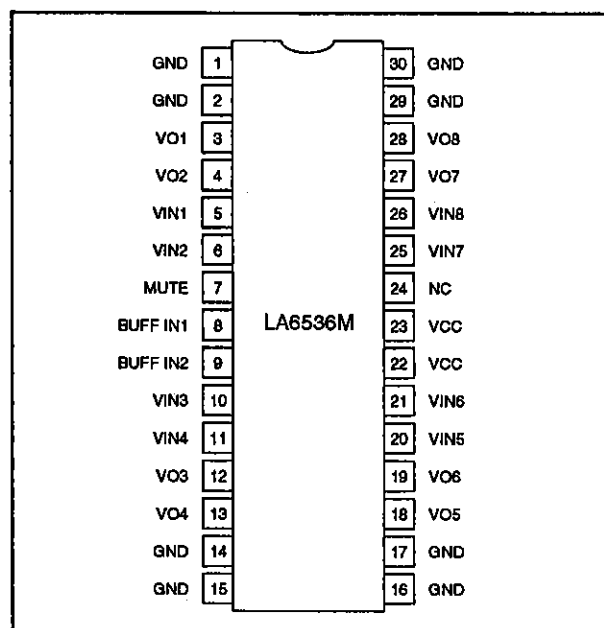
LA6536M**Four-channel Bridge Driver
for Compact Disc Players****OVERVIEW**

The LA6536M is a four-channel bridge driver IC with output muting. It features 700 mA per channel (max) output current, making it ideal for use in radio-cassette recorders incorporating a compact disc player.

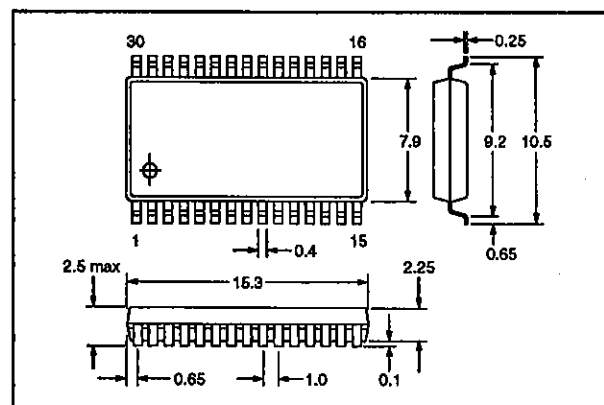
The LA6536M operates from a 5 V supply and is available in 30-pin MFPs.

FEATURES

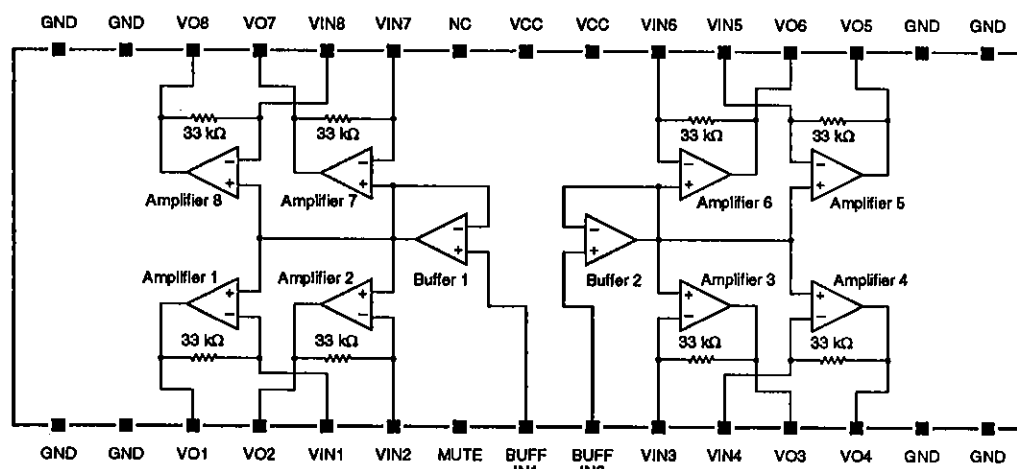
- Four-channel bridge connection (BTL) power amplifier
- Output muting
- 700 mA per channel (max) output current
- 5 V supply
- 30-pin MFP

PINOUT**PACKAGE DIMENSIONS**

Unit: mm

3073A-MFP30S

BLOCK DIAGRAM



PIN DESCRIPTION

Number	Name	Description
1, 2, 14 to 17, 29, 30	GND	Ground
3	VO1	Amplifier 1 output
4	VO2	Amplifier 2 output
5	VIN1	Amplifier 1 input
6	VIN2	Amplifier 2 input
7	MUTE	Mute control input
8	BUFF IN1	Buffer 1 input
9	BUFF IN2	Buffer 2 input
10	VIN3	Amplifier 3 input
11	VIN4	Amplifier 4 input
12	VO3	Amplifier 3 output
13	VO4	Amplifier 4 output
18	VO5	Amplifier 5 output
19	VO6	Amplifier 6 output
20	VIN5	Amplifier 5 input
21	VIN6	Amplifier 6 input
22, 23	VCC	5 V supply
24	NC	No connection
25	VIN7	Amplifier 7 input
26	VIN8	Amplifier 8 input
27	VO7	Amplifier 7 output
28	VO8	Amplifier 8 output

SPECIFICATIONS

Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	9	V
MUTE input voltage	V_{MUTE}	8	V
Input voltage for all other inputs	V_I	8	V
Power dissipation	P_D	0.9	W
Operating temperature range	T_{opr}	-20 to 75	°C
Storage temperature range	T_{stg}	-55 to 150	°C

Recommended Operating Conditions

$T_a = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	5	V

Electrical Characteristics

$V_{CC} = 5\text{ V}$, $T_a = 25\text{ }^{\circ}\text{C}$

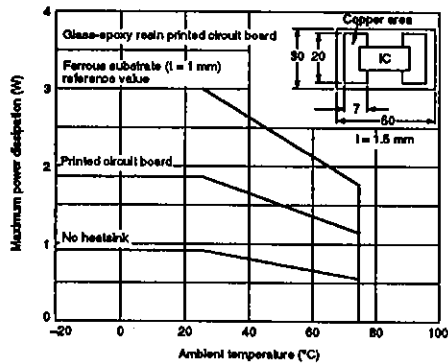
Parameter	Symbol	Condition	Rating			Unit
			min	typ	max	
Supply current	I_{CC}	$V_{BIN} = 0.5\text{ V}$, Mute is OFF.	25	40	60	mA
		Mute is ON.	5	9	20	
BUFF IN1 and BUFF IN2 input voltage	V_{BIN}		1.5	–	$V_{CC} - 1.5$	V
Mute ON voltage	V_{MUTE}		–	0.7	–	V
Input voltage for all other inputs	V_I		1.0	–	$V_{CC} - 1.5$	V
Output source voltage	V_{O1}	See note.	3.4	3.6	–	V
Output sink voltage	V_{O2}	See note.	–	1.0	1.4	V
VO1 to VO2, VO3 to VO4, VO5 to VO6 and VO7 to VO8 output offset voltage	V_{OFF}		–50	–	50	mV
BUFF IN1 and BUFF IN2 input bias current	I_B	$V_{BUFF\ IN1} = V_{BUFF\ IN2} = 0.5V_{CC}$, $R_I = 100\text{ k}\Omega$	–	100	500	nA
Mute ON current	I_{MUTE}		–	10	–	μA
Bridge amplifier closed-loop voltage gain	G_V		–	6	–	dB
VO1 to VO2, VO3 to VO4, VO5 to VO6 and VO7 to VO8 load resistance	R_L		–	8	–	Ω

Note

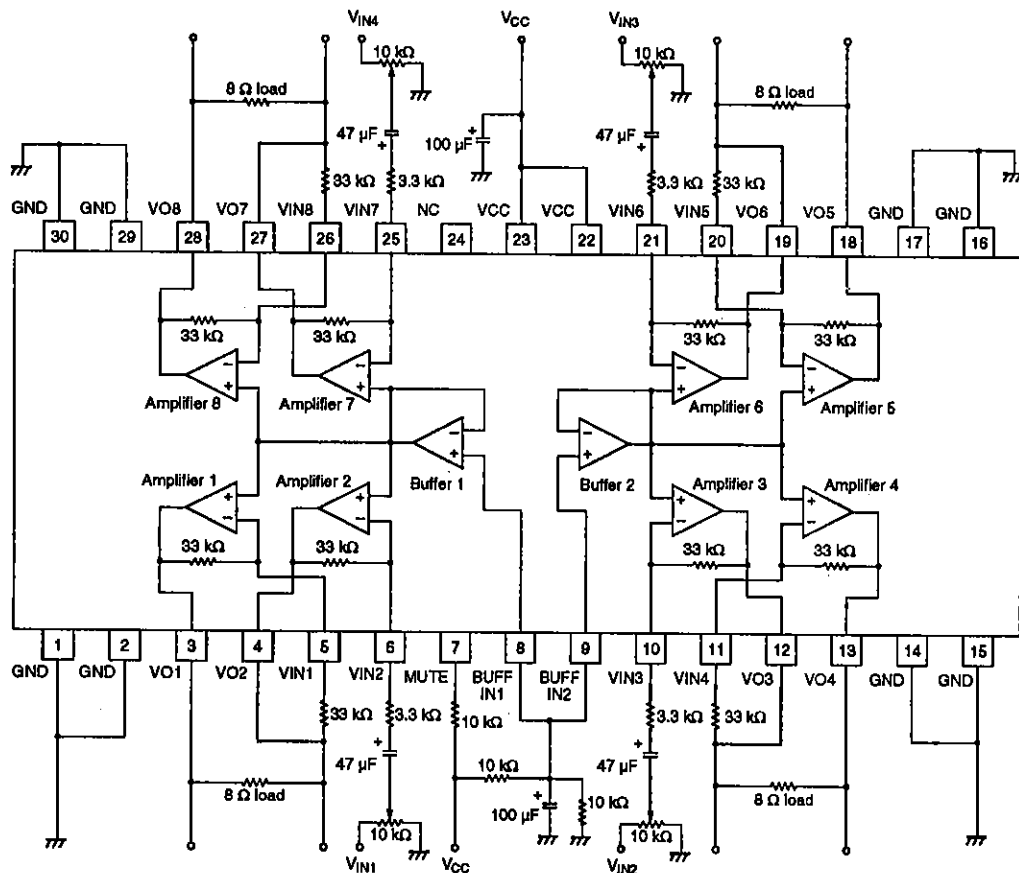
Output-to-ground voltage when an $8\text{ }\Omega$ load is placed between a pair of bridge amplifier outputs.

Typical Performance Characteristics

Maximum power dissipation vs. ambient temperature



TYPICAL APPLICATION



Note

When MUTE is HIGH, muting is ON and VO1 to VO8 are OFF.

- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.