



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 5V 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
- 5V supply
- 30-pin MFP

Specifications

Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC\text{ max}}$		9	V
Maximum input voltage	$V_{INB\text{ max}}$		8	V
MUTE pin voltage	V_{MUTE}		8	V
Allowable power dissipation	$P_d\text{ max}$		0.9	W
Operating temperature	T_{opr}		-20 to +75	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Recommended Operating Conditions at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V_{CC}		5.0	V
Load resistance	R_L	Between pins 3 and 4, 12 and 13, 18 and 19, 27 and 28	8.0	Ω

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

Parameter	Symbol	Conditions	Ratings			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	mA
BUFF IN1 and BUFF IN2 input voltage	V_{BIN}		1.5		$V_{CC}-1.5$	V
Mute ON voltage	V_{MUTE}			0.7		V

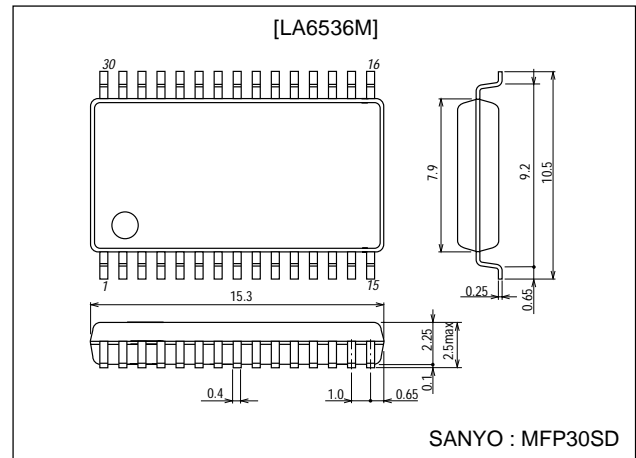
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Package Dimensions

unit:mm

3073A-MFP30SD



LA6536M

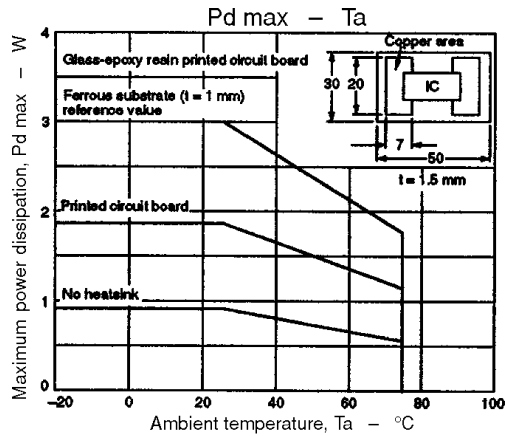
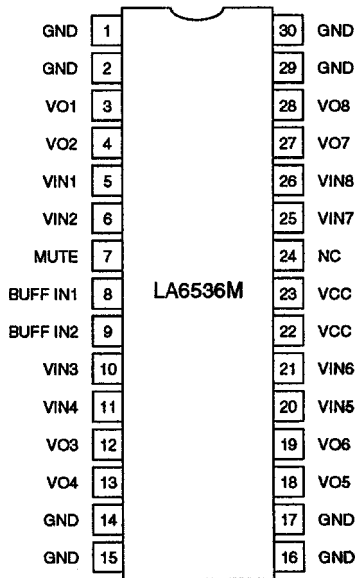
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input voltage for all other inputs	V_I		1.0		$V_{CC}-1.5$	V
Output source voltage	V_{O1}	See note.	3.4	3.6		V
Output sink voltage	V_{O2}	See note.		1.0	1.4	V
V_{O1} to V_{O2} , V_{O3} to V_{O4} , V_{O5} to V_{O6} and V_{O7} to V_{O8} output offset voltage	V_{OFF}		-50		50	mV
BUFF IN1 and BUFF IN2 input bias current	I_B	$V_{BUFF IN1} = V_{BUFF IN2} = 0.5V_{CC}$, $R_I = 100k\Omega$		100	500	nA
Mute ON current	I_{MUTE}			10		μA
Bridge amplifier closed-loop voltage gain	G_V			6		dB
V_{O1} to V_{O2} , V_{O3} to V_{O4} , V_{O5} to V_{O6} and V_{O7} to V_{O8} load resistance	R_L			8		Ω

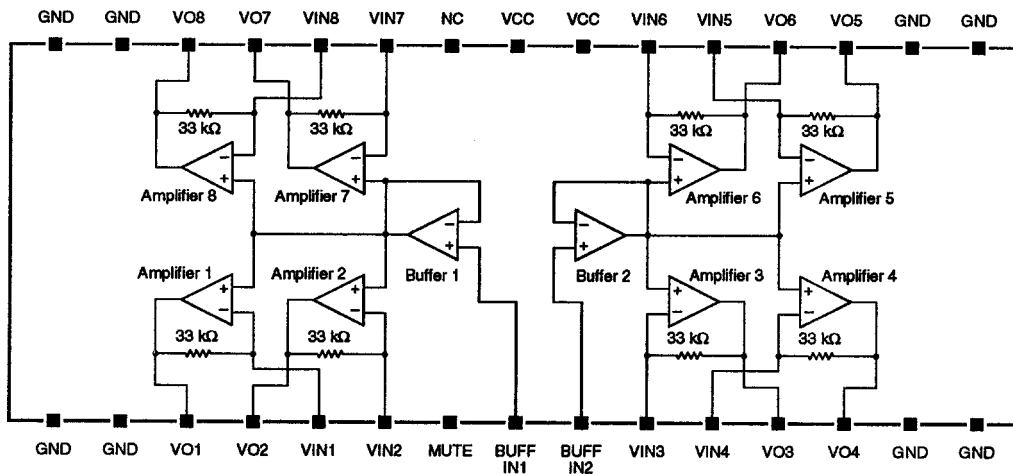
Note

Output-to-ground voltage when an 8 Ω load is placed between a pair of bridge amplifier outputs.

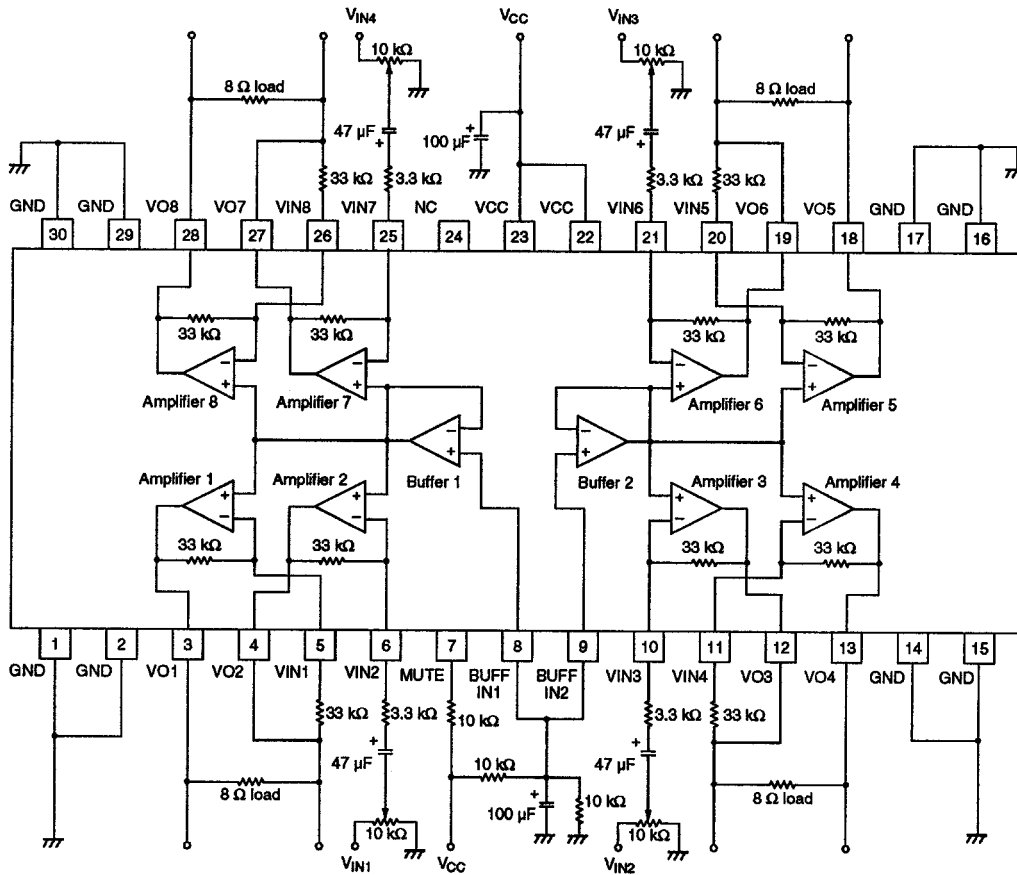
Pin Assignment



Block Diagram



Sample Application Circuit



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

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