Ordering number:ENN3267

Monolithic Linear IC

LA6534

2-Channel BTL-Use Driver

Overview

The LA6534 is a 2-channel BTL-use driver designed for compact disc pickup actuation.

Functions and Features

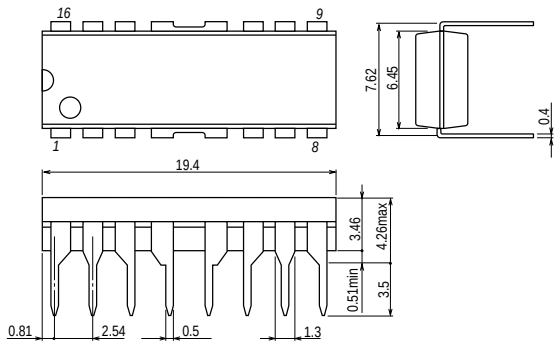
- High output current (I_O max=0.5A).
- Wide operating voltage range (4 to 15V).
- Low input bias current.
- High slew rate (0.8V/μs typ).
- Output of amplifiers 1 to 4 and buffer amplifier at muting-ON mode : OFF.

Package Dimensions

unit:mm

3054A-DIP16F

[LA6534]



SANYO : DIP16F

Specifications

Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max		16	V
Allowable power dissipation	Pd max		1.9	W
Differential input voltage	V_{ID}	Amplifier 2, amplifier 3	15	V
Common-mode input voltage	V_{ICM}	Amplifier 2, amplifier 3	15	V
Maximum input voltage	V_{INB} max	Buffer amplifier	15	V
Maximum flow-in current at muting pin	I_M max		1	mA
Maximum output current	I_O max		0.7	A
Operating temperature	Topr		–20 to +75	˚C
Storage temperature	Tstg		–55 to +150	˚C

Operating Conditions at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC}		5	V
Load resistance	R_L	Between pins 3 and 6, 11 and 14	8	Ω

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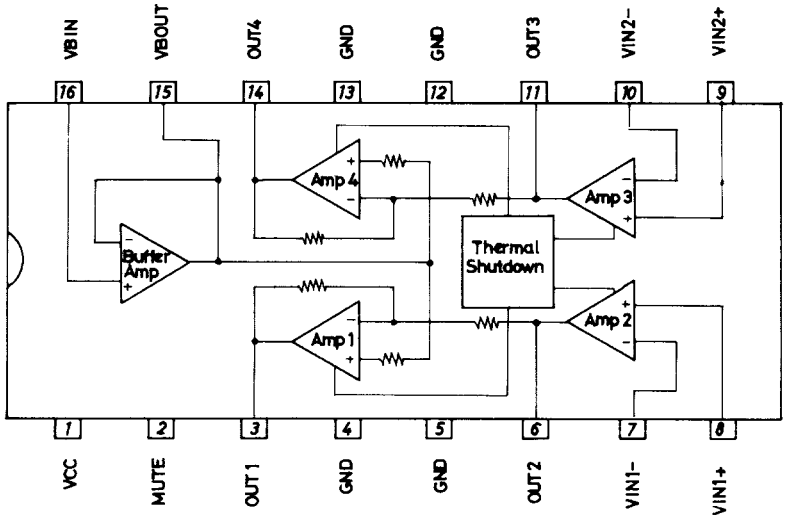
Operating Characteristics at Ta = 25˚C, V_{CC}=5.0V

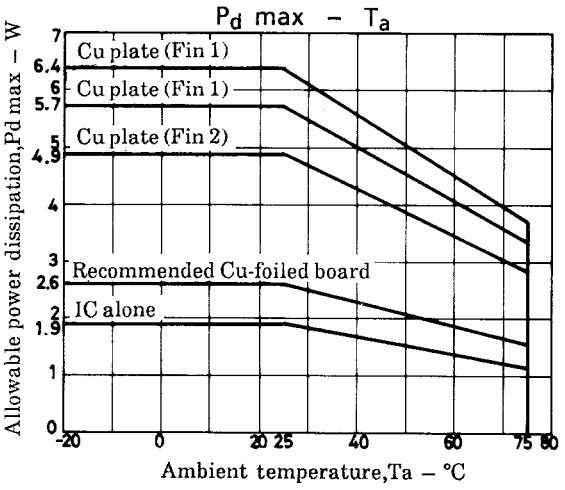
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
No-loaded current drain 1	$I_{CC}1$	Mute OFF, pins 8, 9, 16 : GND	5	10	20	mA
No-loaded current drain 2	$I_{CC}2$	Mute OFF, pins 8, 9, 16 : GND	3	7	15	mA
No-loaded current drain 3	$I_{CC}3$	Mute OFF, pins 8, 9, 16 : 1/2 V_{CC}	10	20	30	mA
No-loaded current drain 4	$I_{CC}4$	Mute OFF, pins 8, 9, 16 : 1/2 V_{CC}	4	8	16	mA
Output offset voltage 1	$V_{OF}1$	Out 1 and Out 2	–50		+50	mV
Output offset voltage 2	$V_{OF}2$	Out 4 and Out 3	–50		+50	mV
Buffer input-output voltage difference	V_{BIO}	Buffer amplifier	–30		+30	mV
Buffer input voltage range	V_{BICM}	Buffer amplifier	1.5		V_{CC}–1.5	V
Common-mode input voltage range	V_{ICM}	Amplifier 2, amplifier 3	1.0		V_{CC}–1.5	V
Input bias current	I_B			50	300	nA
Output voltage	V_O	8Ω load between pins 3 and 6, 11 and 14.	2.8	3.3		V
Bridge output voltage difference	V_{OD}	8Ω load between pins 3 and 6, 11 and 14.	1.8	2.2		V
Closed-circuit voltage gain	V_G	Specified circuit, f=1kHz	30	38		dB
Slew rate	SR	Pins 3 to 6, 11 to 14		0.8		V/µs
Muting pin on-state voltage	V_M			0.7		V
Muting pin flow-in current	I_M			3		µA

Note) The LA6534 is so designed that the outputs at OUT1 to OUT4 are turned OFF and the output at VBOUT is not turned OFF at the muting-ON mode.

Note) Be careful in handling the LA6543, because dielectric breakdown is liable to occur.

Equivalent Circuit Block Diagram





Sample Printed Circuit Pattern