Ordering number : EN3264A

SANYO Semiconductors
DATA SHEET

LA6531 — Monolithic Linear IC 2-Channel BTL-Use Drivers

Overview

The LA6531 are 2-channel BTL-use drivers designed for compact disc pickup actuation.

Functions and Features

- High output current (I_O max = 0.7A).
- Wide operating voltage range (4 to 15V) .
- Low input bias current.
- Output of amps 1 to 4 and buffer amplifier at muting-ON mode : OFF

Specifications

Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max		16	V
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		1.0	mA
Maximum output current	I_O max		0.7	A
Allowable power dissipation	Pd max		1.9	W
Operating temperature	Topr		−20 to +75	°C
Storage temperature	Tstg		−55 to +150	°C

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60408 MS JK/40500TN (KT)/O319TA, TS No.3264-1/4

Operating Conditions at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max		5	V
Load resistance	R_L		8	Ω

Electrical 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 - Out 2	–50		+50	mV
Output offset voltage 2	$V_{OF}2$	Out 4 - 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	R_L = 8.0 Ω	2.8	3.3		V
Bridge output voltage difference	V_{OD}	Pins 3-6, 11-14 8Ω load	1.8	2.2		V
Closed-circuit voltage gain	V_G		30	38		dB
Muting pin ON-state voltage	V_M			0.7		V
Muting pin flow-in current	I_M			3		μA

Note) With thermal shutdown function

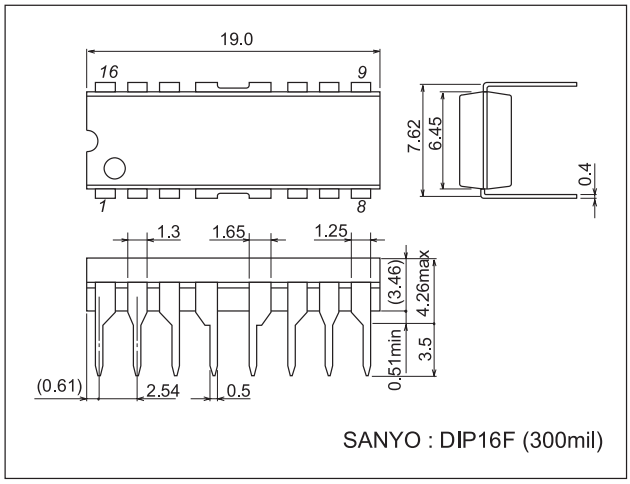
∗ : The LA6531 is so designed that the outputs at OUT1 to OUT4 and the output at VBOUT are turned OFF.

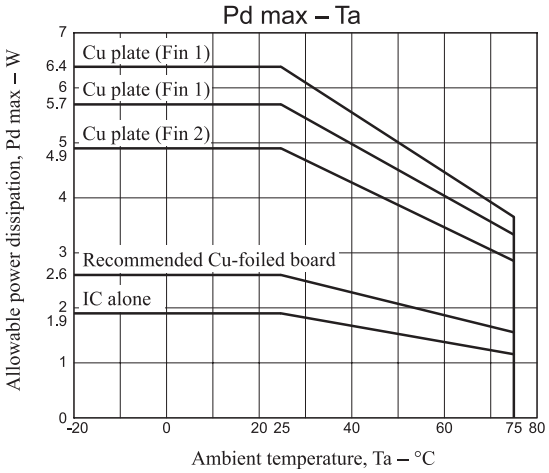
∗ : Be carefull in handling the LA6531, because dielectric breakdown is liable to occur.

Package Dimensions

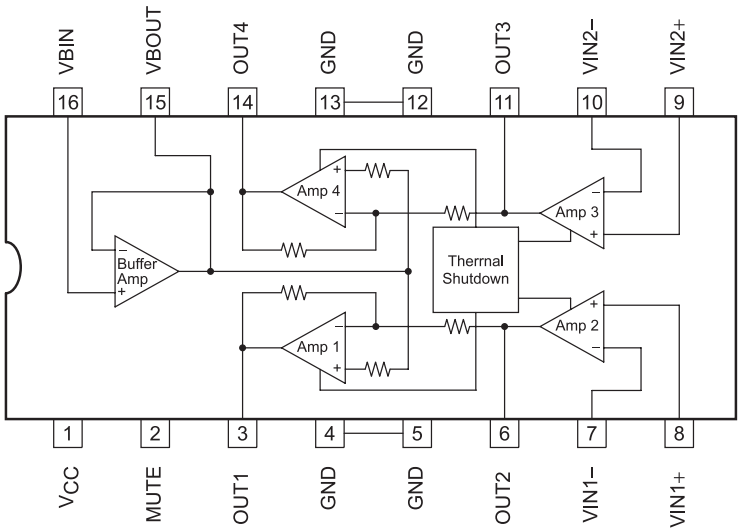
unit : mm (typ)

3054B





Block Diagram



Sample Printed Circuit Pattern