

LA73050 — Monolithic Linear IC 6ch 75Ω Video Driver

Overview

This LA73050 is a 6ch 75Ω Video Driver IC. The LA73050 is ideal for use the video output driver such as VCR and DVD-player equipment.

Functions

- 6dB AMP+driver (6ch)

Specifications

Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V _{CC} max		±7, +14	V
Allowable power dissipation	Pd max	Ta ≤ 80°C *	600	mW
Operating temperature	Topr		-20 to +80	°C
Storage temperature	Tstg		-55 to +150	°C

* When mounted on a 114.3×76.1×1.6mm³ glass epoxy board.

Recommended Operating Conditions at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Recommending operation voltage	V _{CC}		±5, +9	V
Operating voltage range	V _{CC} op		±4.0 to ±5.5 +8 to +10	V

- Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.
- SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

LA73050

Electrical Characteristics at Ta = 25°C, VCC = ±5V, The mode with DC offset.

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Current dissipation	ICC1	No signal	56.1	66	75.9	mA
Voltage gain	VG	VIN = 1Vp-p, f = 4.43MHz	5.7	6.2	6.7	dB
Frequency characteristics 1	VF1	VIN = 1Vp-p, f = 100k/5MHz	-1.0	0	1.0	dB
Frequency characteristics 2	VF2	VIN = 1Vp-p, f = 100k/27MHz		-25	-20	dB
Group delay	GD	f = 100k/4.43MHz		±10	±15	ns
Maximum output level	VO max	f = 1kHz, THD = 1%	3.0	4.0		Vp-p
Control voltage H level	VcntH	Pins 7, 16 input voltage	2.5		VCC	V
Control voltage L level	VcntL	Pins 7, 16 input voltage	0		1.0	V

Design guarantee items

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Video S/N	VG1V			-75	-70	dB
Differential Gain	DG	VIN = 1Vp-p, RAMP signal			1.0	%
Differential Phase	DP	VIN = 1Vp-p, RAMP signal			1.0	deg.
Mute attenuation	VMUTEV	VIN = 1Vp-p, f = 4.43MHz		-60	-55	dB
Cross-talk between channel	VCTKV	VIN = 1Vp-p, f = 4.43MHz		-60	-55	dB

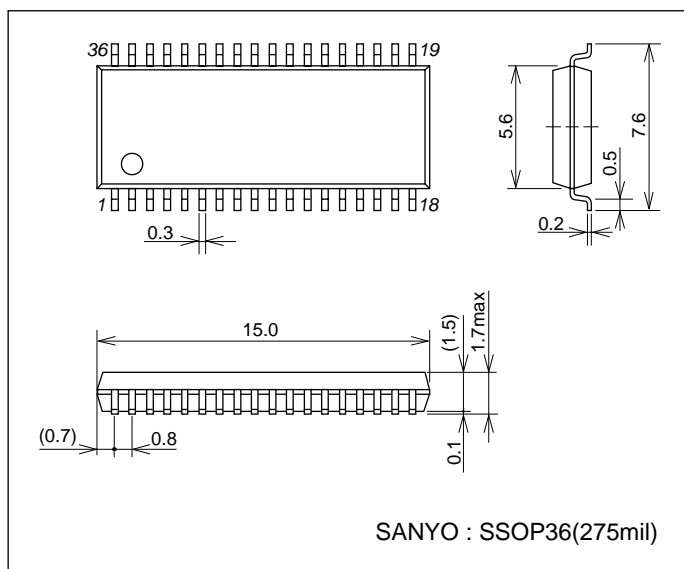
Truth Table

	Pins 7, 16
H	THROUGH
L	MUTE

Package Dimensions

unit : mm

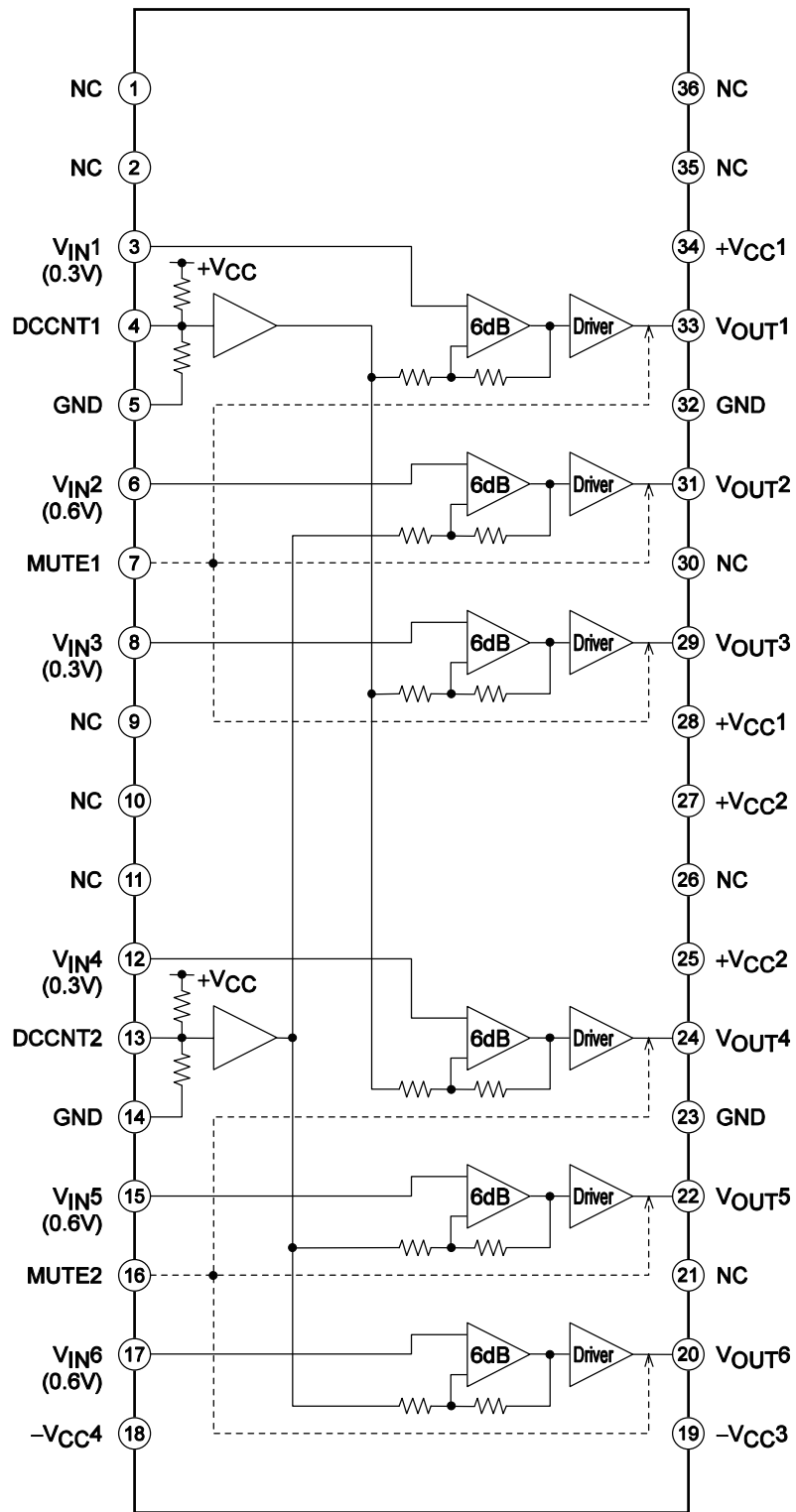
3247A



LA73050

Block Diagram

[查询 LA73050 供应商](#)

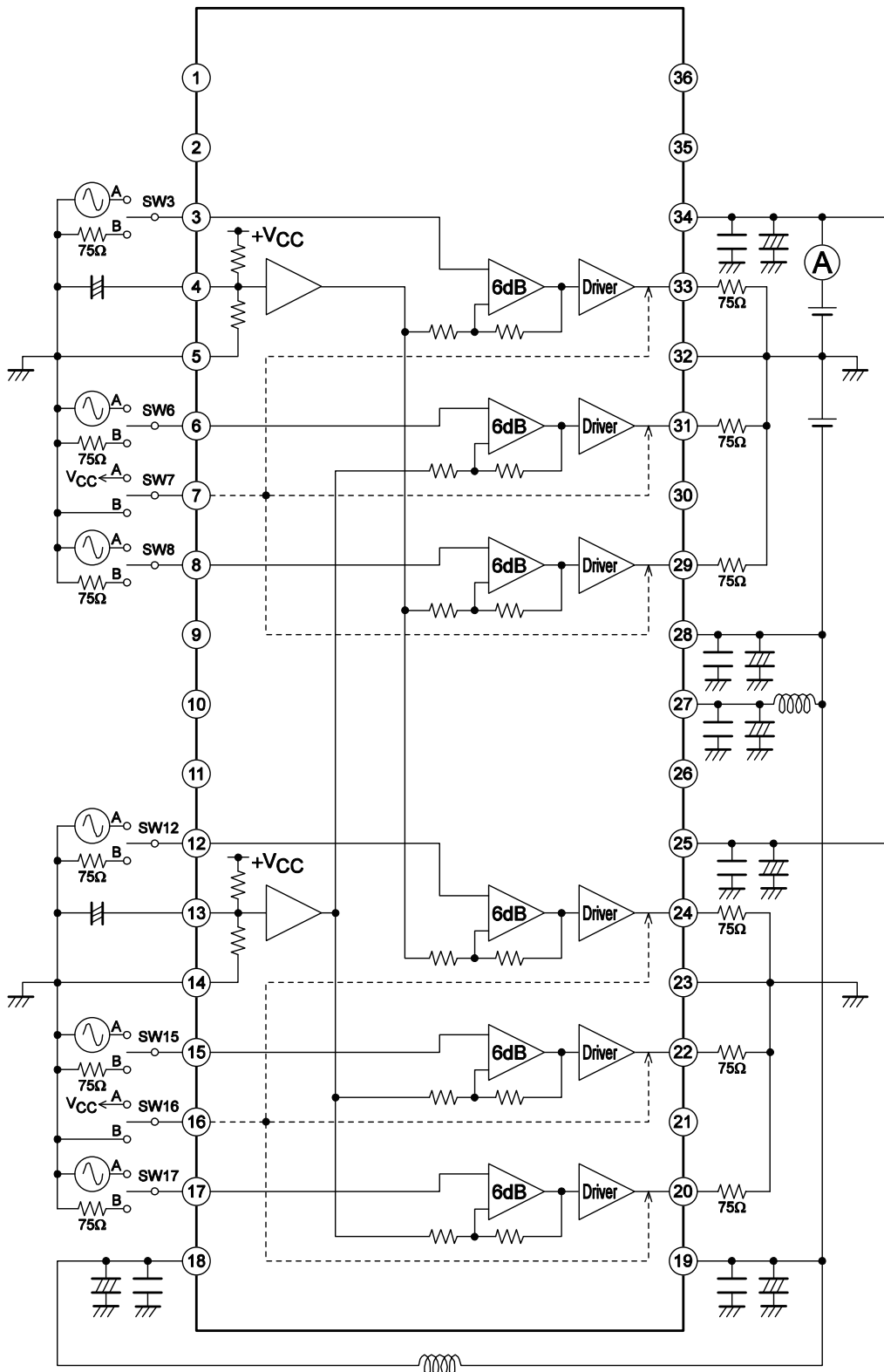


MSB06038

LA73050

Test Circuit Diagram (Using \pm power supply)

[查询 LA73050 引脚图](#)



MSB06039

LA73050

Pin Functions

查询"LA73050"供应商

Pin No.	Pin Name	Terminal Explanation	Equivalent Circuit
1 2 9 10 11 21 26 30 35 36	NC		
3 6 8 12 15 17	V _{IN1} V _{IN2} V _{IN3} V _{IN4} V _{IN5} V _{IN6}	Input terminal. Non-bias. It is possible to use with being directly connected with DC. When DC coupling, it is necessary to add bias after the coupling.	<p style="text-align: right;">MSP06323</p>
4 13	DCCNT1 DCCNT2	DC offset mode charge terminal between input and output When a condenser is input at the position between pin 4 (DCCNT1) and GND, the operation of IC becomes the mode with 0.3V DC offset between input and output of 1, 3, 4ch (pins 3 and 33, pins 8 and 29, pins 12 and 14). Similarly when a condenser is input at the position between pin 13 (DCCNT2) and GND, it becomes the mode with 0.6V DC offset between input and output of 2, 5, 6ch (pins 6 and 31, pins 15 and 22, pins 17 and 20). And when pins 4, 13 and GND is shorted, it becomes the mode without DC offset between input and output.	<p style="text-align: right;">MSP06364</p>
5 14 23 32	GND	Both ±power supply and +power supply are GND.	
7 16	MUTE1 MUTE2	Changeover terminal of Mute. When the Mute terminal is Low, it is Mute. When the terminal is Open, it is Low.	<p style="text-align: right;">MSP06325</p>

Continued on next page.

LA73050

Continued from preceding page.

查询"LA73050"供应商

Pin No.	Pin Name	Terminal Explanation	Equivalent Circuit
18 19 27 28	-VCC	-VCC of using \pm power supply. Using +power supply, it is GND.	
20 22 24 29 31 33	VOUT6 VOUT5 VOUT4 VOUT3 VOUT2 VOUT1	Output terminal. Using \pm power supply, in case of the mode with DC offset, it is possible to use without capacitor of output by setting pins 3, 8, 12 to 0.3V-bias and by setting pins 6, 15, 17 to 0.6V-bias. And in case of the mode without DC offset, it is possible to use without capacitor of output by setting each input to zero-bias. When using +power supply, both of the modes needs coupling capacitor.	
25 34	+VCC	Both \pm power supply and +power supply are +VCC.	

- Specifications of any and all SANYO products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.
- SANYO Electric Co., Ltd. strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with some probability. It is possible that these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits and error prevention circuits for safe design, redundant design, and structural design.
- In the event that any or all SANYO products (including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from the authorities concerned in accordance with the above law.
- No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, of otherwise, without the prior written permission of SANYO Electric Co., Ltd.
- Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the SANYO product that you intend to use.
- 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.

This catalog provides information as of March, 2006. Specifications and information herein are subject to change without notice.