
PRODUCT INFORMATION

Vol.86

Actuator Driver IC Series Developed

Low saturation voltage output ICs support a wide range of applications from audio CD players to DVD RAM drives.

LA6551, LA6552, LA6554H, LA6556, LA6557H

Overview

The digital optical disc media market, which started with the compact disc (CD), has developed phenomenally, and can be said to be the first result of the digital revolution of direct significance to the consumer. The audio CD is already a worldwide phenomenon, and the MD and the audio CD-R are growing rapidly. At the same time the CD-ROM, which was developed for use as external storage for personal computers, has now become an essential peripheral device in all PCs, and there is now much activity in rewritable and large capacity optical technologies, such as CD-R/RW, DVD-ROM, and DVD-RAM.

In addition to the spindle motor used to rotate the disc in these devices, several other actuators are used as well. These include the focus and tracking actuators required to position the optical pickup so that it can actually read the data on the disc, the sled motor used to move the optical pickup assembly, and a tray motor to load and unload the disc. Four or five actuators are used in most optical drives, and each of these requires a driver IC.

Due to the trends toward multi-functionality and more complex functions in optical disc equipment, there are now demands for driver ICs for the actuators that provide optimal specifications and performance for each type of optical drive unit. And it goes without saying that lower power consumption is also strongly desired.

To respond to these market needs, Sanyo has now developed a new series of actuator driver ICs for information-handling optical disc drive units: the LA65xx Series.

The LA65xx Series achieve the low saturation voltage output and high current linearity specifications that are optimal for actuator drivers for a wide range of increasingly sophisticated optical disc units by adopting Sanyo's unique product technologies with a proven track record in a wide range of actuator driver areas. At the same time, this new series provides an extensive set of on-chip additional functions to respond to the needs of the latest drive designs. Furthermore, these new products are available in packages with integral heat sinks for simplified end product thermal design.

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The products in this series announced here support a wide range of application needs and include the LA6552, LA6556, and LA6557H for use in CD and MD drives, and the LA6551 and LA6554H for use in CD-ROM, CR-R/RW, and DVD-ROM drives.

Features

- Extensive lineup provides optimal support for a wide range of end products.
- Extensive set of additional functions for easier end product design.
- Low saturation voltage output achieves highly efficient drive.
- Integrated heat sink packages for easier thermal design.
- Maximum output current of 1 A provides ample current margin.

Specifications

Type No.	LA6551	LA6552	LA6554H	LA6556	LA6557H
Feature	Standby function	Internal Vref (channel 5 only)	Channel 4 output voltage setting	Switching between internal and external Vref	Popularly-priced product
Supply voltage	14	14	14	14	14
Maximum output current	1	1	1	1	0.7
Package	HSOP-36R	HSOP-36R	HSOP-28H-C	HSOP-36R	HSOP-28H-C
Number of channels	4	5	4	5	5
BTL	4	5	4	4	4
H bridge	0	0	0	1	1
Mute	2:1:1	2:1:1	2:1:1	1:3; All BTL	1; All BTL
Vs	1	1	2:1:1	1	1
Standby	○	—	—	—	—
Pre-OP	○	○	—	○	—
Free-OP	○	—	—	—	—
Regulator	—	○	—	○	○

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Sample Availability

These ICs will be available in sample quantities in mid-August 1999 (the LA6551, LA6552, and LA6554H) and in October 1999 (the LA6556 and LA6557H). They will be available in production quantities (1 million units/month) in early 2000.

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