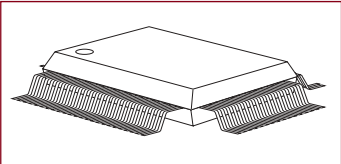


Product Summary Sheet

Applications

- MEMS Driver (MicroElectroMechanical Systems)
- Piezoelectric Transducer Driver
- Optical Crosspoint Switches (using MEMS technology)

Package Type:



Low Profile MQFP Gullwing (FG)

Also available in die form

HV256

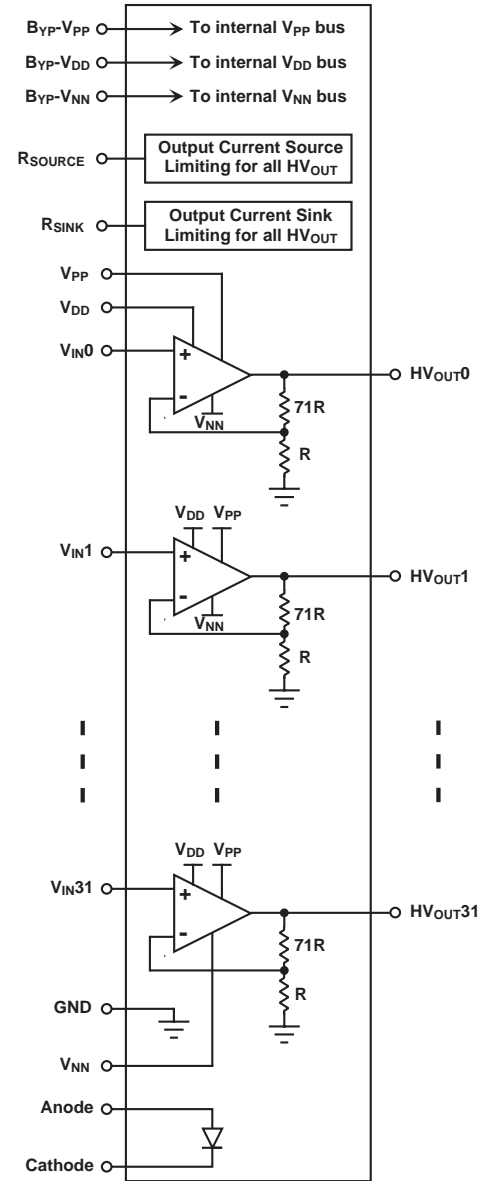
32-Channel High Voltage Amplifier Array

Product Overview:

The HV256 is a 32-channel high voltage amplifier array integrated circuit featuring programmable, external current limit on each amplifier. Each channel is configured as a noninverting amplifier. The maximum output voltage swing is 5V below the V_{PP} high voltage supply. The outputs can drive capacitive loads of up to 3000pF. Typical slew rate under a no load condition is 2.0V/ μ s.

The amplifier has an internal closed loop gain of 37dB or 72V/V saving the user from having to use external gain setting resistors. When a DAC voltage of 4.096 is applied to the input of an amplifier an output voltage of 295V will be created.

The HV256 operates on a 300V supply and two low voltage supplies, 8.0V and -7.0V. It is designed to operate on minimal power featuring a low quiescent current, while still maintaining a slew rate of 2.0V/ μ s. To further reduce power consumption, high value gain setting resistors are used for the internal feedback path. The output current for all 32 channels can be adjusted via two external resistors. This allows the user to set the amount of output current during a shorted condition. An integrated diode is also included to help monitor die temperature.



Block Diagram

Features:

32 independent high voltage amplifiers

Output voltage up to 295V

2.0V/ μ s output slew rate

Integrated feedback resistors

High value internal feedback resistors

Very low operating current (maximum 25 μ A per channel)

Integrated silicon diode for temperature sensing

Adjustable output current limit

Benefits:

Saves board space.

Provides adequate movement for an optical MEMS switch

Provides adequate switching time from one line to another

Saves board space. Reduces component count and simplifies board layout.

Minimizes power consumption and dissipation

Minimizes power consumption and dissipation

Allows for external temperature compensation or thermal protection

Provides output short circuit protection to ground and supply rails

HV256

32-Channel High Voltage Amplifier Array

Electrical Specifications

<u>Device</u>	<u># of Channels</u>	<u>Max. Output Voltage</u>	<u>Closed Loop Gain</u>
HV256	32	295V	72V/V

Ordering Information / Availability

<u>Part Number</u>	<u>Package</u>	<u>Datasheet</u>	<u>Samples</u>	<u>Lead Time</u>
HV256FG	100 Lead MQFP	Now	Now	8 - 12 weeks ARO
HV256X	Die Form	Now	Now	8 - 12 weeks ARO

MEMS Drivers IC Family

<u>Part Number</u>	<u>Channels</u>	<u>HV_{OUT}</u>	<u>Slew Rate</u>	<u>Config</u>	<u>Package</u>
HV254	32	250V	3.0V/ μ s	Amp Only	100 MQFP, Die
HV256	32	295V	2.0V/ μ s	Amp Only	100 MQFP, Die
HV257	32	295V	2.0V/ μ s	Amp + S/H	100 MQFP, Die

Product Contact

If you have questions regarding the HV256 or would like to receive samples, contact Supertex Applications at:

Telephone: (800) 222-9883
Fax: (408) 222-4895
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Web: www.supertex.com

Supertex Sales:

Contact your Supertex Area Sales Office