



AIC1532

32-Channel High Voltage Driver



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64-pin LQFP

Features

- 32 high voltage push-pull output channels
- High voltage up to 230 V
- TTL compatible inputs
- Over-current and short-circuit protection
- Adjustable switching speed of the high voltage output
- Under-voltage protection

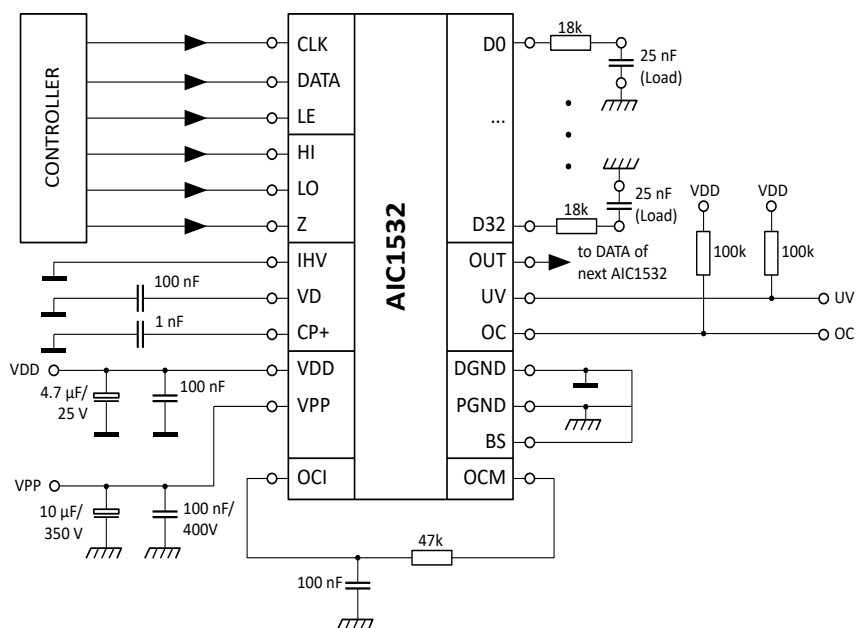
Product Overview

The AIC1532 is a 32-bit serial to parallel converter IC with 32 high voltage push-pull outputs and TTL compatible input signals. The outputs are designed to drive capacitive and resistive loads. An internal protection function monitors the logic supply voltage (VDD) and disables all output transistors of the high voltage pushpull outputs if an undervoltage condition is detected.

The IC contains a 32-bit shift register with a clock (CLK) and a data (DATA) input. The data output (OUT) allows cascading of several ICs. The 32-bit data will be latched with the Latch Enable Signal (LE) in a 32-bit latch. Three dedicated logic input signals (HI, LO, Z) allow setting of all high voltage outputs instantaneously to high, low, or high-impedance without changing the setting of the 32-bit shift register and latch.

Typical Applications

A wide range of target applications includes driving capacitive actuators, piezo transducer excitation, and electro-luminescent displays.



AIC1532 Typical Application Circuit

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Product Specifications - Key Parameters

Specification Parameter	Symbol	Max	Unit
High Voltage Supply	V_{PP}	280	V
Output Voltage of the High Voltage Push-Pull Outputs	V_{DN}	280	V
Logic Supply Voltage	V_{DD}	7	V
Slew Rate of V_{PP}		160	V/ms
Logic Input Levels	V_{IN}	$V_{DD} + 0.3$	V
Logic Output Levels	V_O	$V_{DD} + 0.3$	V
Output Currents of the Status Outputs (Under-voltage and Over-current Detection)	I_O	6	mA
Gate Voltage	V_D	13	V
ESD - Protection	V_{ESD}	+2000	V
Continuous Total Power Dissipation	P_{TOT}	750	mW
Storage Temperature Range	T_{STG}	150	°C
Junction Temperature Range	T_J	150	°C
Thermal Resistance	R_{THJA}	70	K/W

POWER, PERFORMANCE, VALUE



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