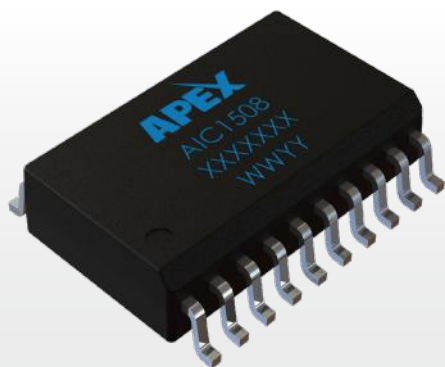




AIC1508

8-Bit High Voltage Parallel Driver IC



8-Bit HV Parallel Driver IC

20-pin SOP

Features

- High voltage driver with 8 parallel push-pull outputs
- Supply voltage: 20 V - 300 V (absolute max supply voltage is 320V)
- Output current per channel is $\pm 40\text{mA}$ (sink/source)
- Direct transistor gate control input
- Switching time control for high speed applications by external resistance
- N-channel MOSFET outputs for lower power consumption

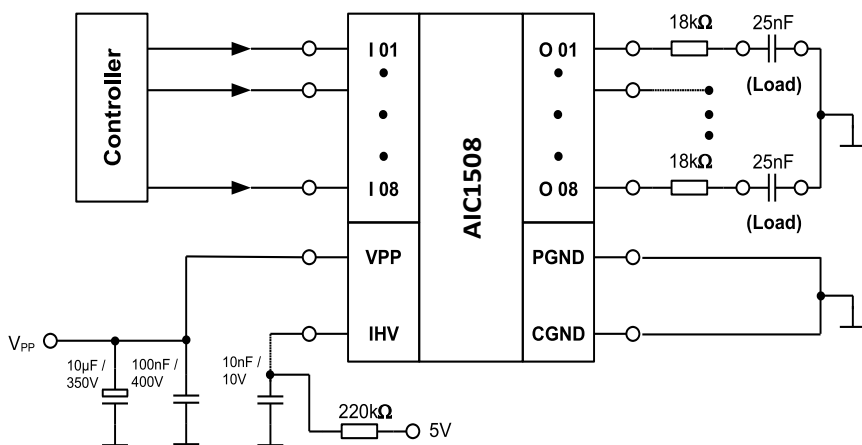
Product Overview

The AIC1508 is a rigid, low-cost general purpose high voltage driver IC with 8 high voltage push-pull outputs. The device has been designed for harsh industrial applications and is suitable for many different applications. The outputs can drive capacitive and resistive loads such as piezoelectric transducers, electroluminescent devices and micro-mechanical actuators. The maximum operating voltage is 300V, and each output has a source-sink capability of up to 40mA.

External output resistors can be used to limit the maximum power dissipation of the device, allowing the outputs to be run in parallel. The IC also allows the use of an external resistor to set the switch-on time of the outputs and provides protected direct transistor gate inputs. The high voltage push-pull outputs are well protected against possible latch-up by using the bulk-drain diodes of the output MOSFETs and their full dielectric isolation.

Typical Applications

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



AIC1508 Typical Application Circuit

AIC1508

8-Bit HV Parallel Driver IC

Product Specifications - Key Parameters

Specification Parameter	Symbol	Max	Unit
High Voltage Supply	V_{PP}	320	V
Output Voltages	V_{OUT}	320	V
Slew Rate of V_{PP}	W_{VPP}	160	V/ms
Input Levels	V_{IN}	12	V
IHV Input Level	I_{IHV}	300	μA
Continuous Total Power Dissipation	P_{TOT}	600	mW
Storage Temperature Range	T_{stg}	150	$^{\circ}C$
Junction Temperature Range	T_J	150	$^{\circ}C$
Thermal Resistance	R_{thja}	90	K/W

POWER, PERFORMANCE, VALUE



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