

1.2A Dual High-Speed MOSFET Drivers

Features:

- Low Cost
- Latch-Up Protected: Will Withstand 500 mA Reverse Output Current
- ESD Protected $\pm 2kV$
- High Peak Output Current: 1.2A
- Wide Operating Range:
 - 4.5V to 16V
- High Capacitive Load Drive Capability: 1000 pF in 38 nsec
- Low Delay Time: 75 nsec Max
- Logic Input Threshold Independent of Supply Voltage
- Output Voltage Swing to Within 25 mV of Ground or V_{DD}
- Low Output Impedance: 8Ω

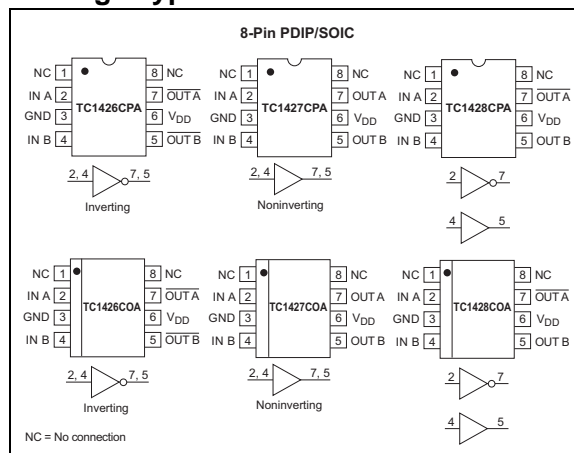
Applications:

- Power MOSFET Drivers
- Switched Mode Power Supplies
- Pulse Transformer Drive
- Small Motor Controls
- Print Head Drive

Device Selection Table

Part Number	Package	Temp. Range
TC1426COA	8-Pin SOIC	0°C to +70°C
TC1426CPA	8-Pin PDIP	0°C to +70°C
TC1427COA	8-Pin SOIC	0°C to +70°C
TC1427CPA	8-Pin PDIP	0°C to +70°C
TC1428COA	8-Pin SOIC	0°C to +70°C
TC1428CPA	8-Pin PDIP	0°C to +70°C

Package Type



General Description:

The TC1426/TC1427/TC1428 are a family of 1.2A dual high-speed drivers. CMOS fabrication is used for low-power consumption and high efficiency.

These devices are fabricated using an epitaxial layer to effectively short out the intrinsic parasitic transistor responsible for CMOS latch-up. They incorporate a number of other design and process refinements to increase their long-term reliability.

The TC1426 is compatible with the bipolar DS0026, but only draws 1/5 of the quiescent current. The TC1426/TC1427/TC1428 are also compatible with the TC426/TC427/TC428, but with 1.2A peak output current rather than the 1.5A of the TC426/TC427/TC428 devices.

Other compatible drivers are the TC4426/TC4427/TC4428 and the TC4426A/TC4427A/TC4428A. The TC4426/TC4427/TC4428 have the added feature that the inputs can withstand negative voltage up to 5V with diode protection circuits. The TC4426A/TC4427A/TC4428A have matched input to output leading edge and falling edge delays, t_{D1} and t_{D2} , for processing short duration pulses in the 25 nanoseconds range. All of the above drivers are pin compatible.

The high-input impedance TC1426/TC1427/TC1428 drivers are CMOS/TTL input-compatible, do not require the speed-up needed by the bipolar devices, and can be directly driven by most PWM ICs.

This family of devices is available in inverting and non-inverting versions. Specifications have been optimized to achieve low-cost and high-performance devices, well-suited for the high-volume manufacturer.