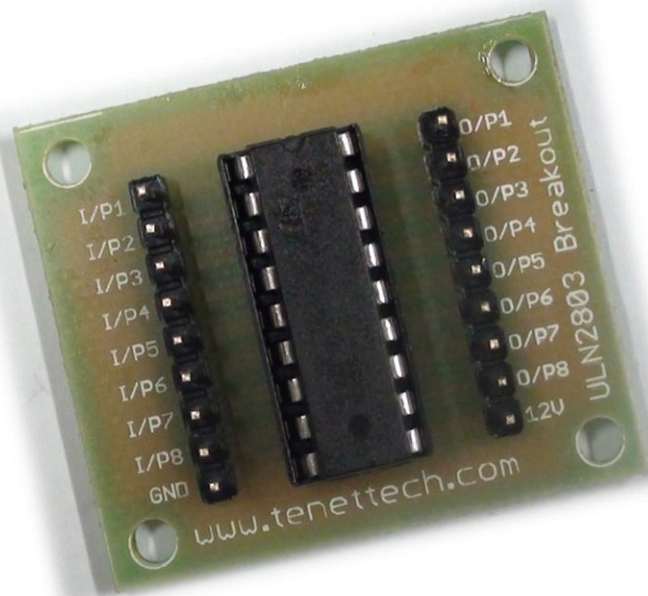


# 2016



## Tenet's ULN2803 Darlington driver breakout



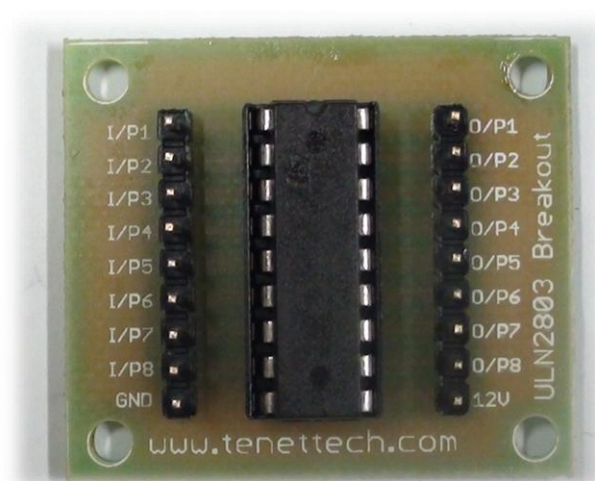
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## Introduction

The ULN2803A is a high-voltage, high-current Darlington transistor array. The device consists of eight NPN Darlington pairs that feature high-voltage outputs with common cathode clamp diodes for switching inductive loads. The collector-current rating of each Darlington pair is 500 mA. The Darlington pairs may be connected in parallel for higher current capability.



The ULN2803A has a 2.7-k $\Omega$  series base resistor for each Darlington pair for operation directly with TTL or 5-V CMOS devices.

## Features

- 500-mA-Rated Collector Current(Single Output)
- High-Voltage Outputs: 50 V
- Output Clamp Diodes
- Inputs Compatible With VariousTypes of Logic
- Relay-Driver Applications
- Compatible with ULN2800A Series

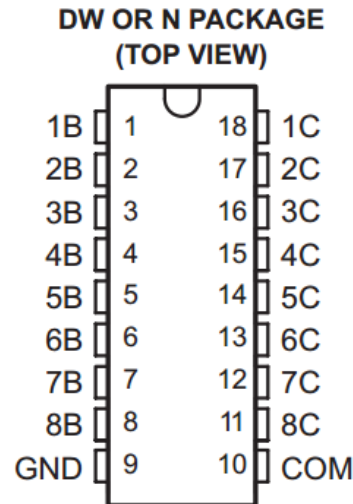
## Applications

- Relay driver
- Hammer drivers
- Display drivers



- Line drivers
- Logic drivers
- Logic buffers

## Pin Configurations and Functions



### Pin Functions

PIN		TYPE	DESCRIPTION
NAME	NO.		
<1:8>B	1 - 8	I	Channel 1 through 7 darlington base input
<1:8>C	18 - 11	O	Channel 1 through 7 darlington collector output
GND	7	—	Common Emmitter shared by all channels (typically tied to ground)
COM	8	I/O	Common cathode node for flyback diodes (required for inductive loads)

## Specifications

Parameters	Specifications
Collector-emitter voltage	50V
Input voltage	30 V
Peak collector current	500mA
Output clamp current	500mA
Total substrate-terminal current	-2.5 A

Operating virtual junction temperature	-65 to150 °C
Vi	5 V
VCC	50V

