

PWR-DRV451-4

High-voltage Peripheral Drivers

200/300 V
200 mA per Channel



Product Highlights

Controls High-voltage Peripheral Devices

- Relays and solenoids
- Lamps and gas-discharge displays
- Motors
- Interface to P-channel power MOSFETs
- Heaters

Logic Compatible Inputs

- TTL or 5 V CMOS
- Easy microcontroller interface

Dual high-voltage MOSFET outputs

- 200 and 300 V versions
- 200 mA per output @ $T_A = 25^\circ\text{C}$
- Drives up to 20 W loads from rectified 120 VAC input
- Outputs can be paralleled for higher current

Industry-standard Pinouts

- Pin compatible with 75451-4
- Pin compatible with 3611-14

Description

The Power Integrations PWR-DRV451-4 high-voltage peripheral drivers provide the ideal interface between logic-level control signals and high-voltage loads.

Each device contains 2 N-channel power MOSFETs that are capable of withstanding up to 300 V in the off-state. These outputs can conduct 200 mA individually or 300 mA when operated in parallel at an ambient temperature of 25°C .

This family of interface products provide dual peripheral AND, NAND, OR, and NOR input logic for driving loads such as small motors, solenoids, relays, heaters, and lamps. In addition, the fast switching of the PWR-DRV451-4 make them desirable as level translators for high-voltage P-type transistors switching grounded loads.

The PWR-DRV451-4 are available in an 8-Pin plastic DIP package.

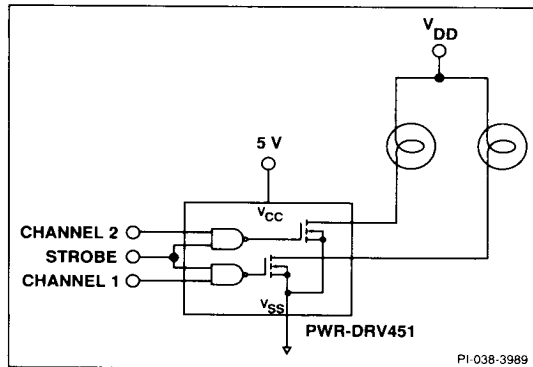


Figure 1. Typical Application.

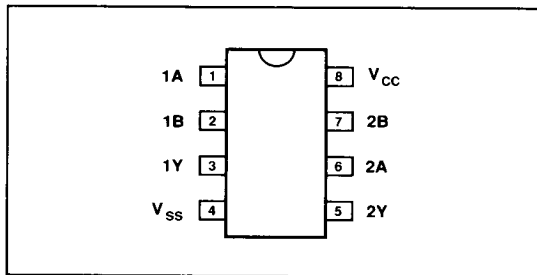


Figure 2. Pin Configuration.

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ORDERING INFORMATION

PART NUMBER	PACKAGE	OUTPUT VOLTAGE
PWR-DRV451PFC1	8-pin PDIP	200 V
PWR-DRV451PFC2	8-pin PDIP	300 V
PWR-DRV452PFC1	8-pin PDIP	200 V
PWR-DRV452PFC2	8-pin PDIP	300 V
PWR-DRV453PFC1	8-pin PDIP	200 V
PWR-DRV453PFC2	8-pin PDIP	300 V
PWR-DRV454PFC1	8-pin PDIP	200 V
PWR-DRV454PFC2	8-pin PDIP	300 V



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Pin Functional Description

Pin 1:

Logic input **1A** which determines the state of the output MOSFET **1Y**. See the truth tables for more information.

Pin 2:

Logic input **1B** which determines the state of the output MOSFET **1Y**. See the truth tables for more information.

Pin 3:

Open-drain output of MOSFET **1Y**.

Pin 4:

V_{SS} logic ground reference, which is also connected to the sources of the MOSFET outputs.

Pin 5:

Open-drain output of MOSFET **2Y**.

Pin 6:

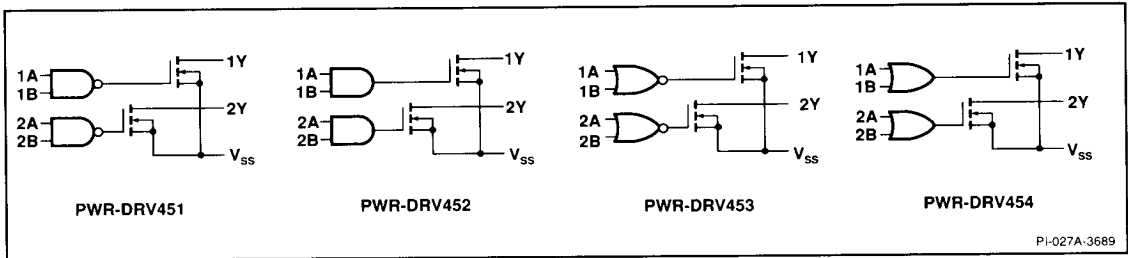
Logic input **2A** which determines the state of the output MOSFET **2Y**. See the truth tables for more information.

Pin 7:

Logic input **2B** which determines the state of the output MOSFET **2Y**. See the truth tables for more information.

Pin 8:

5 V V_{CC} input, which supplies power to the logic and level translators.



PI-027A-3689

Figure 3. Schematic Diagram of the PWR-DRV451-4.

PWR-DRV451			PWR-DRV452			PWR-DRV453			PWR-DRV454		
A	B	Y	A	B	Y	A	B	Y	A	B	Y
0	0	ON	0	0	OFF	0	0	ON	0	0	OFF
0	1	ON	0	1	OFF	0	1	OFF	0	1	ON
1	0	ON	1	0	OFF	1	0	OFF	1	0	ON
1	1	OFF	1	1	ON	1	1	OFF	1	1	ON

Figure 4. Truth Tables.

**FOR A MORE DETAILED SPECIFICATION ON THIS PRODUCT
PLEASE CONTACT YOUR LOCAL POWER INTEGRATIONS SALES OFFICE.**

