

DN8695

9-circuit Darlington Driver Array (High Breakdown Voltage : 50V,
Large Drive Current : 1.5A)

Overview

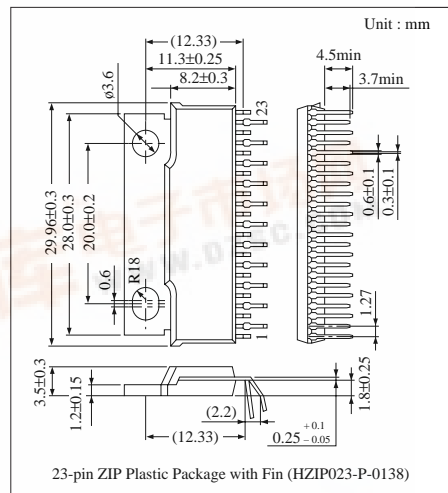
The DN8695 is a 9-circuit non-inverting type driver array composed of TTL circuit and 1.5A NPN Darlington transistors.

Features

- 9 circuits
- High breakdown voltage : $V_{CE(SUS)} = 50V$ (min)
- Large output current : $I_O = 1.5A$ (max)
- Low active input
- TTL compatible input

Applications

- Driving of the printer motors, etc.
- Driving of the LEDs, lamps, and various relays



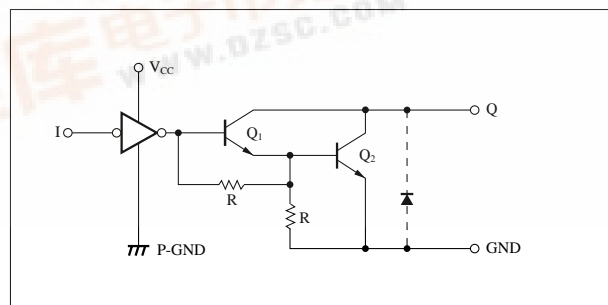
Pin Descriptions

Symbol	Pin name
Q_1 to Q_9	Output pin
P-GND ₁ to P-GND ₃	Driver ground pin
I_1 to I_9	Input pin
GND	Ground pin
V_{CC}	Power pin
Fin	Fin

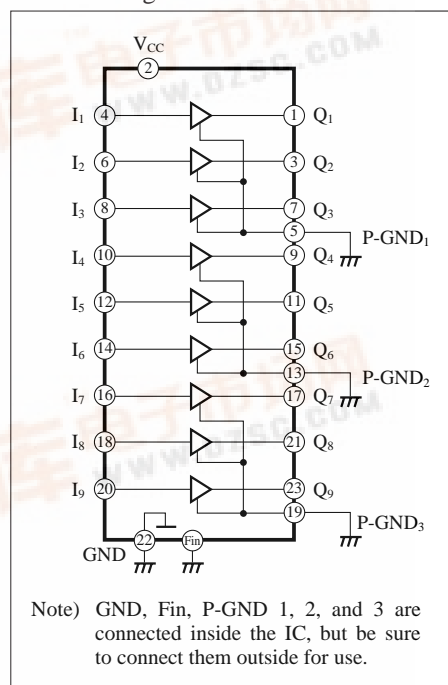
Function Table

Input (I_n)	Output (Q_n)
L	L
H	H
OPEN	H

Schematic Circuit (1 Circuit)



Block diagram



Note) GND, Fin, P-GND 1, 2, and 3 are connected inside the IC, but be sure to connect them outside for use.

■ Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Supply voltage	V _{CC}	7	V
Output breakdown	V _{CE(sus)}	50	V
Output current	I _O	1.5	A
Input voltage	V _I	0 to V _{CC}	V
Power dissipation	P _D	20 *	W
Operating ambient temperature	T _{opr}	-20 to +75	°C
Storage temperature	T _{stg}	-55 to +150	°C

* Ta=75°C when the infinite heat sink is used

■ Electrical Characteristics (V_{CC}=5V, Ta=25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Input voltage	V _{IH}	V _{CC} =4 to 6V	2	—	—	V
	V _{IL}	V _{CC} =4 to 6V	—	—	0.8	V
Output saturation voltage	V _{CE(sat)}	V _{CC} =4V, V _I =0.8V, I _O =1A	—	—	2.2	V
Input current	I _{IH}	V _I =2.4V	-10	—	10	μA
	I _{IL}	V _I =0V	-100	—	10	μA
Output leakage current	I _{OLK}	V _C =6V, V _{CE} =50V, V _I =2V	—	—	1	mA
Supply current	I _{CCH}	V _{CC} =5V, Total V _I =2.4V	—	—	45	mA
	I _{CCL}	V _{CC} =5V, Total V _I =0V	—	—	50	mA
Output suspending voltage	V _{CE(sus)}	L=4mH, R=40Ω, I _O =600mA	50	—	—	V
Propagation delay time	t _{PHL}	V _H =60V, R _L =45Ω	—	—	5	μs
	t _{PLH}	V _{CC} =5V, C _L =15pF	—	—	5	μs

■ Characteristics Curve

