

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

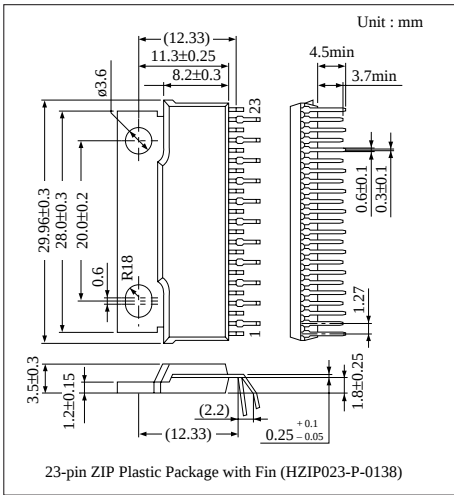
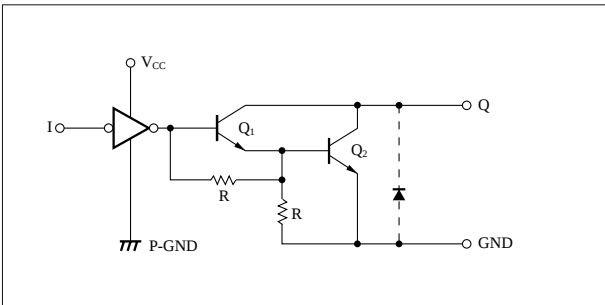
Pin Descriptions

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

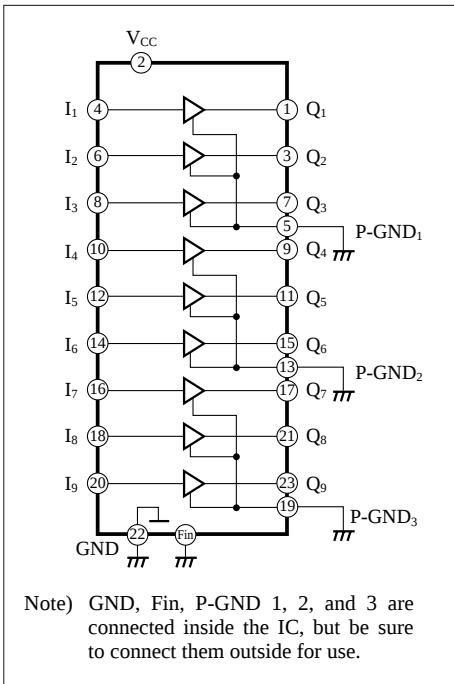
Function Table

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

