DN8695

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

■ Overview

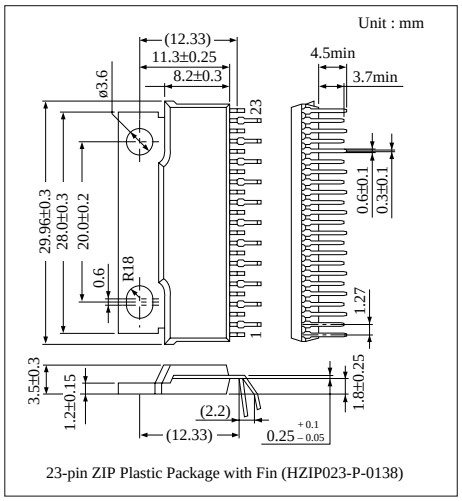
The DN8695 is a 9-circuit non-inverting type driver array composed of TTL circuit and 1.5A NPN Darlington transistors.

■ 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



23-pin ZIP Plastic Package with Fin (HZIP023-P-0138)

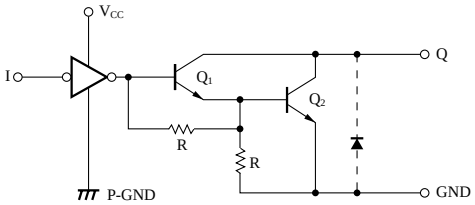
■ Pin Descriptions

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

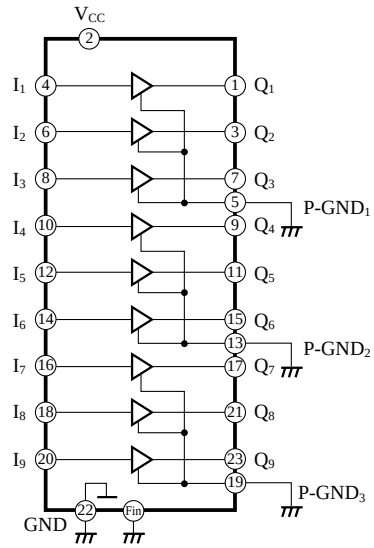
■ Function Table

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