

## 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 :  $V_{CB(SUS)} = 50V$  (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

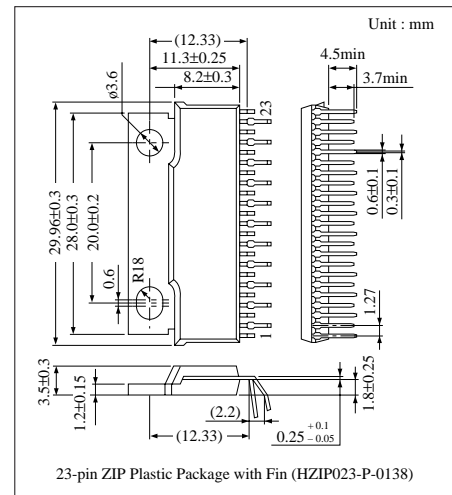
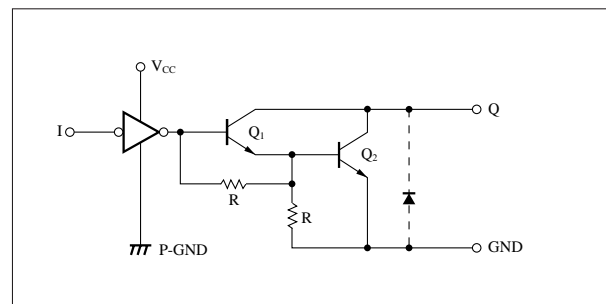
### Pin Descriptions

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

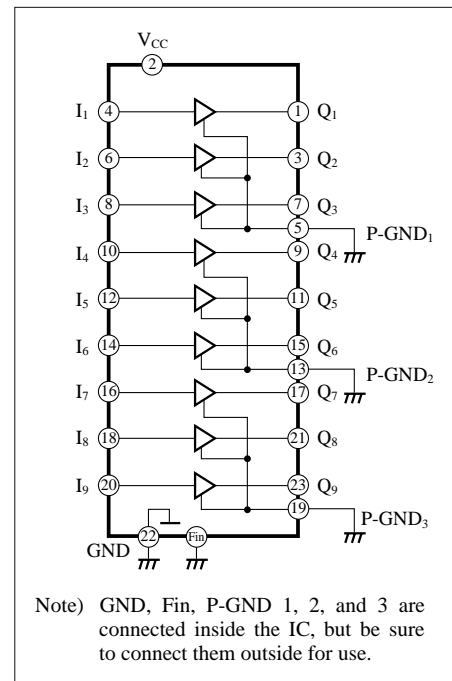
### Function Table

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

### Schematic Circuit (1 Circuit)



### Block diagram



## ■ 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<sub>CC</sub>=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	$V_{CE(sus)}$	$L=4mH$ , $R=40\Omega$ , $I_O=600mA$	50	—	—	V
Propagation delay time	$t_{PHL}$	$V_H=60V$ , $R_L=45\Omega$	—	—	5	μs
	$t_{PLH}$	$V_{CC}=5V$ , $C_L=15pF$	—	—	5	μs

## ■ Characteristics Curve

