

# TD62771AP

## 7CH HIGH-VOLTAGE SOURCE DRIVER

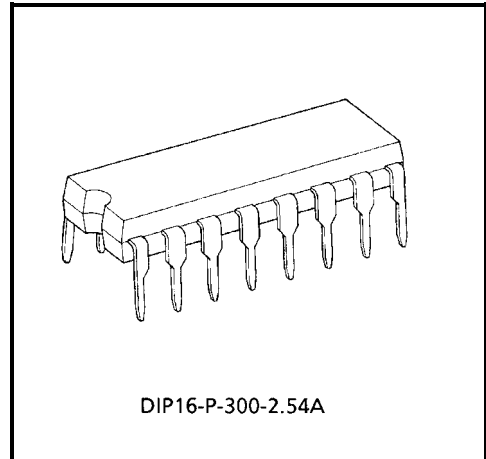
The TD62771AP is comprised of seven source current Transistor Array.

This driver is specifically designed for fluorescent display applications.

Applications include relay, hammer and lamp drivers.

### FEATURES

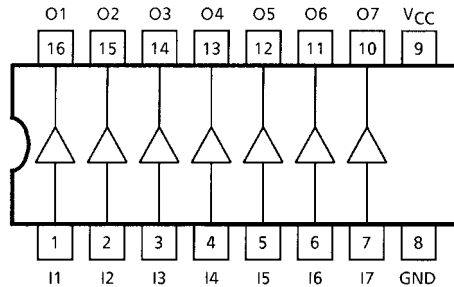
- High output voltage  $V_{CC} = 60\text{ V MIN.}$
- Output current (single output)  $I_{OUT} = -50\text{ mA MIN.}$
- Input compatible with TTL, 5 V CMOS
- Pull-down resistors / each output
- Single supply voltage
- Package Type : DIP-16 pin



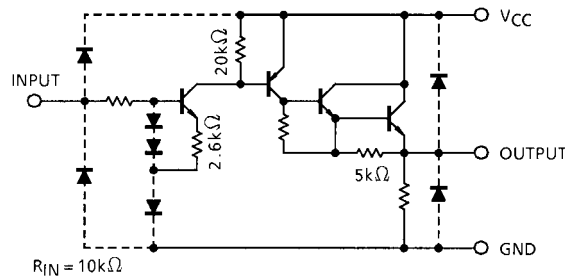
Weight: 1.11 g (Typ.)

CHARACTERISTIC	DESIGNATION
TD62771AP	TTL, 5 V CMOS

### PIN CONNECTION (TOP VIEW)



### SCHEMATICS (EACH DRIVER)



Note: The input and output parasitic diodes cannot be used as clamp diodes.

## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V <sub>CC</sub>	60	V
Output Voltage	V <sub>OUT</sub>	V <sub>CC</sub>	V
Output Current	I <sub>OUT</sub>	-50	mA / ch
Input Voltage	V <sub>IN</sub>	20	V
Power Dissipation	P <sub>D</sub> (Note)	1.47	W
Operating Temperature	T <sub>opr</sub>	-40~85	°C
Storage Temperature	T <sub>stg</sub>	-55~150	°C

Note: Delated above 25°C in the proportion of 11.7 mW / °C

## RECOMMENDED OPERATING CONDITIONS (Ta = -40~85°C)

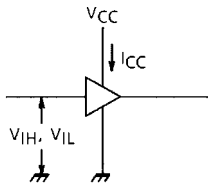
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Supply Voltage	V <sub>CC</sub>	—	4.5	—	55	V
Output Voltage	V <sub>OUT</sub>	—	0	—	V <sub>CC</sub>	V
Output Current	I <sub>OUT</sub>	—	0	—	-40	mA / ch
Input Voltage	V <sub>IN</sub>	—	0	—	7	V
Power Dissipation	P <sub>D</sub>	—	—	—	0.52	W

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

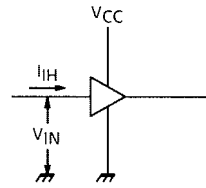
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN	TYP.	MAX	UNIT	
Input Voltage	"H" Level	V <sub>IH</sub>	1	—	2.0	—	V	
	"L" Level	V <sub>IL</sub>	1	—	0	0.8		
Input Current	"H" Level	I <sub>IH</sub>	2	—	40	75	μA	
Output Current	"L" Level	I <sub>OL</sub>	3	V <sub>IN</sub> = 2.4 V	—	200	μA	
Output Voltage	"H" Level	V <sub>OH</sub>	4	I <sub>OUT</sub> = -40 mA V <sub>IN</sub> = V <sub>IH</sub> MIN.	V <sub>CC</sub> -2.5	V <sub>CC</sub> -1.7	—	V
	"L" Level	V <sub>OL</sub>		I <sub>OUT</sub> = 0, V <sub>IN</sub> = V <sub>IL</sub> MAX.	—	50	250	mV
Supply Current	I <sub>CC</sub> (ON)	1	V <sub>CC</sub> = 55 V, V <sub>IN</sub> = V <sub>IH</sub> MIN.	—	—	20	mA	
	I <sub>CC</sub> (OFF)		V <sub>CC</sub> = 55 V, V <sub>IN</sub> = V <sub>IL</sub> MAX.	—	—	1		
Turn-On Delay	t <sub>ON</sub>	5	V <sub>CC</sub> = 55 V, C <sub>L</sub> = 15 pF	—	0.2	—	μs	
Turn-Off Delay	t <sub>OFF</sub>			—	6.0	—	μs	

## TEST CIRCUIT

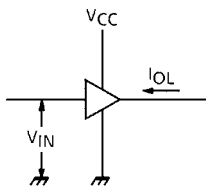
### 1. $V_{IH}$ , $V_{IL}$ , $I_{CC}$



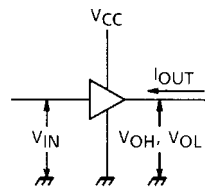
### 2. $I_{IH}$



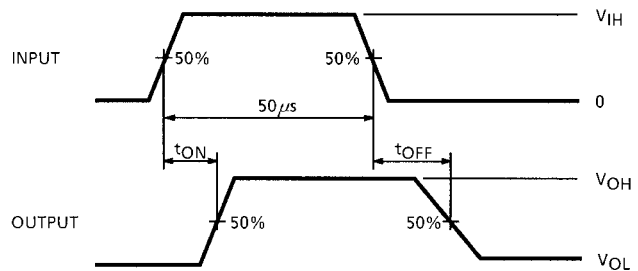
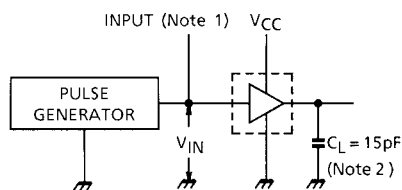
### 3. $I_{OL}$



### 4. $V_{OH}$ , $V_{OL}$



### 5. $t_{ON}$ , $t_{OFF}$



Note 1: Pulse width 50  $\mu$ s, duty cycle 10%

Output impedance 50  $\Omega$ ,  $t_r \leq 100$  ns,  $t_f \leq 100$  ns

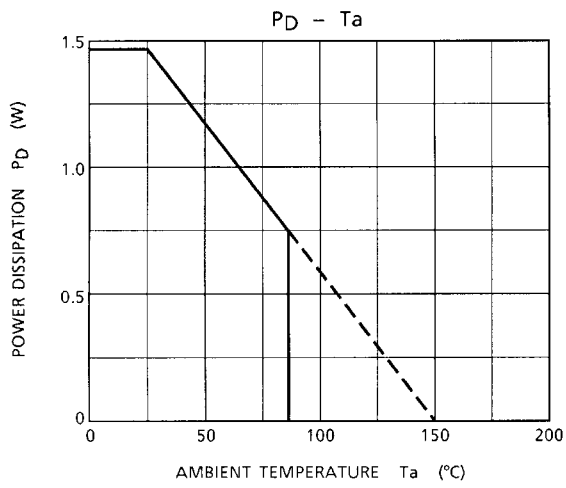
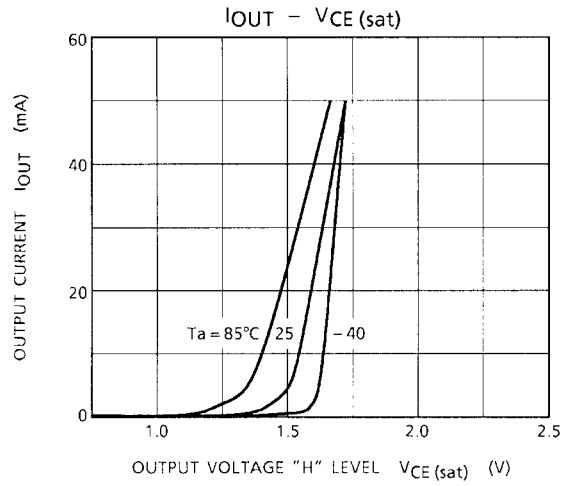
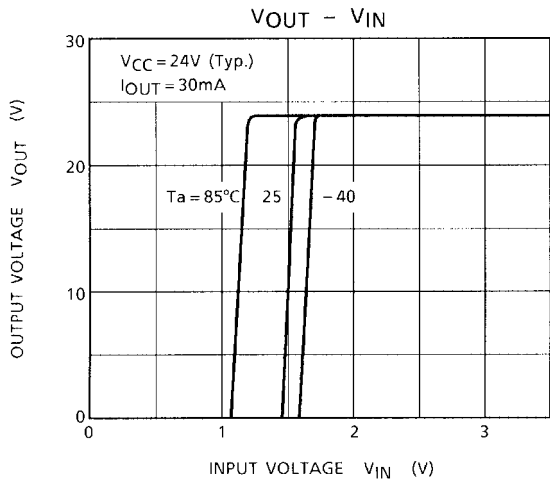
Note 2:  $C_L$  includes probe and jig capacitance

## PRECAUTIONS for USING

This IC does not integrate protection circuits such as overcurrent and overvoltage protectors.

Thus, if excess current or voltage is applied to the IC, the IC may be damaged. Please design the IC so that excess current or voltage will not be applied to the IC.

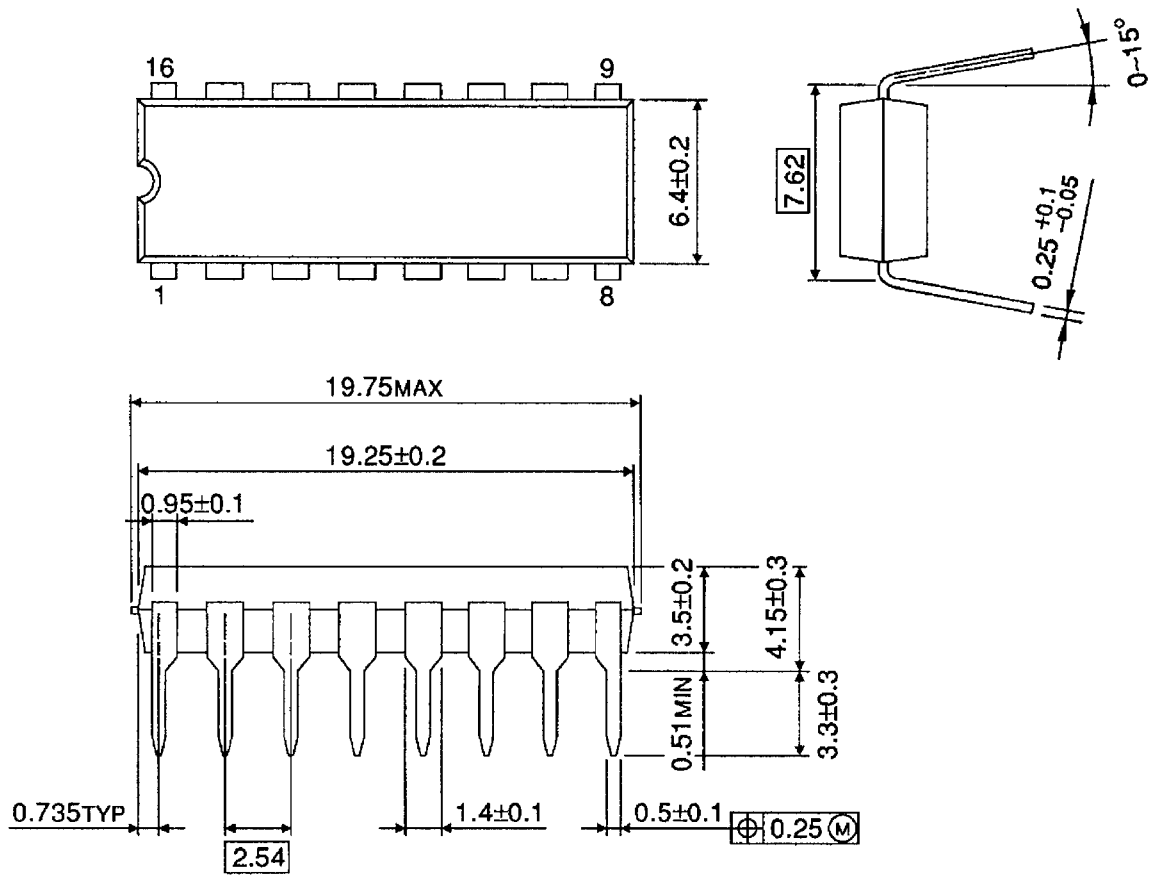
Utmost care is necessary in the design of the output line, VCC and GND line since IC may be destroyed due to short-circuit between outputs, air contamination fault, or fault by improper grounding.



## PACKAGE DIMENSIONS

DIP16-P-300-2.54A

Unit: mm



Weight: 1.11 g (Typ.)

**RESTRICTIONS ON PRODUCT USE**

000707EBA

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