

TOSHIBA

TD62771AP

TOSHIBA BIPOLAR DIGITAL INTEGRATED CIRCUIT SILICON MONOLITHIC

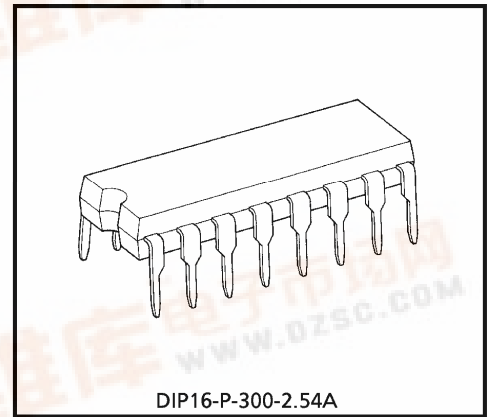
TD62771AP

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

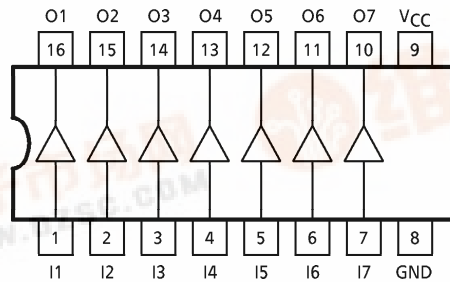
- High output voltage $V_{CC} = 60V \text{ MIN.}$
- Output current (single output) $I_{OUT} = -50mA \text{ MIN.}$
- Input compatible with TTL. 5V CMOS
- Pull-down resistors/each output
- Single supply voltage
- Package Type-AP : DIP-16pin



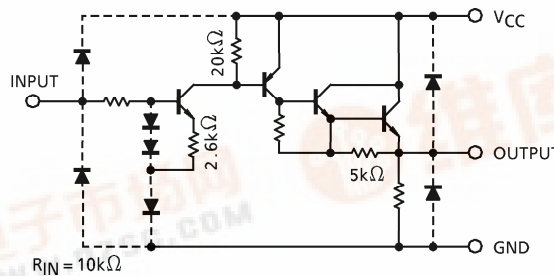
Weight : 1.11g (Typ.)

CHARACTERISTIC	DESIGNATION
TD62771AP	TTL, 5V CMOS

PIN CONNECTION (TOP VIEW)



SCHEMATICS (EACH DRIVER)



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

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MAXIMUM RATINGS (Ta = 25°C)

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

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

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

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

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

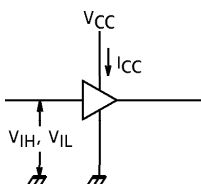
CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Voltage	"H" Level	V _{IH}	1	—	2.0	—	—	V
	"L" Level	V _{IL}	1	—	0	—	0.8	
Input Current	"H" Level	I _{IH}	2	—	—	40	75	μA
Output Current	"L" Level	I _{OL}	3	V _{IN} = 2.4V	—	200	—	μA
Output Voltage	"H" Level	V _{OH}	4	I _{OUT}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

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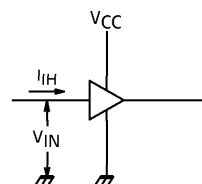
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TEST CIRCUIT

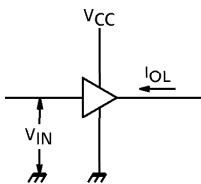
1. V_{IH} , V_{IL} , I_{CC}



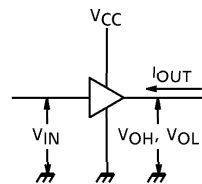
2. I_{IH}



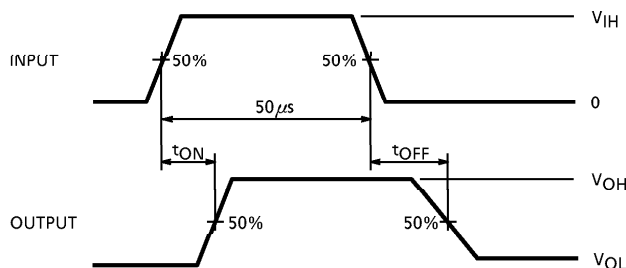
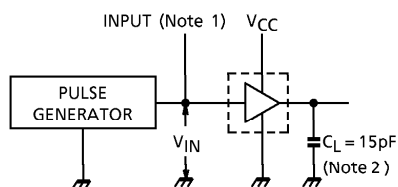
3. I_{OL}



4. V_{OH} , V_{OL}



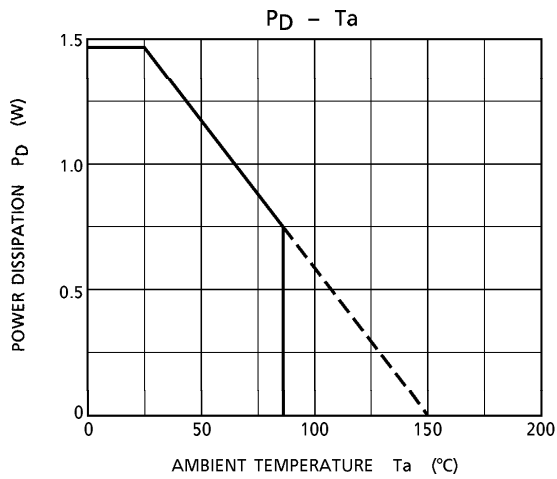
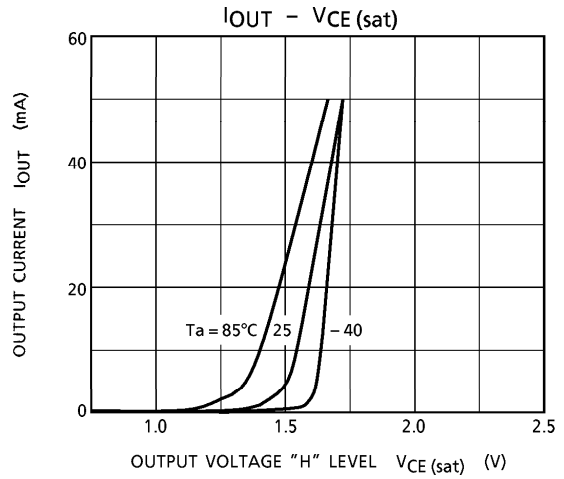
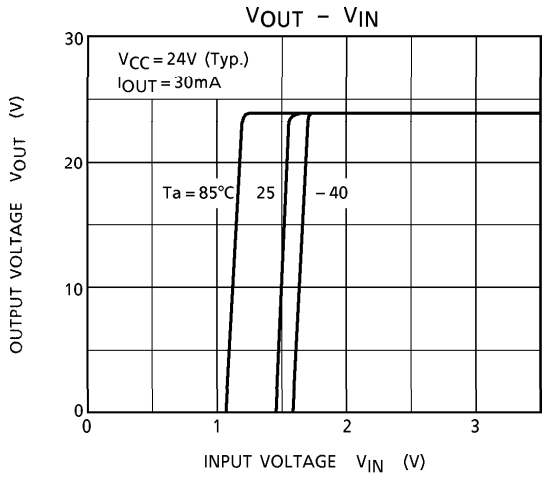
5. t_{ON} , t_{OFF}



- (Note 1) Pulse width $50\mu s$, duty cycle 10%
Output impedance 50Ω , $t_r \leq 100ns$, $t_f \leq 100ns$
- (Note 2) C_L includes probe and jig capacitance

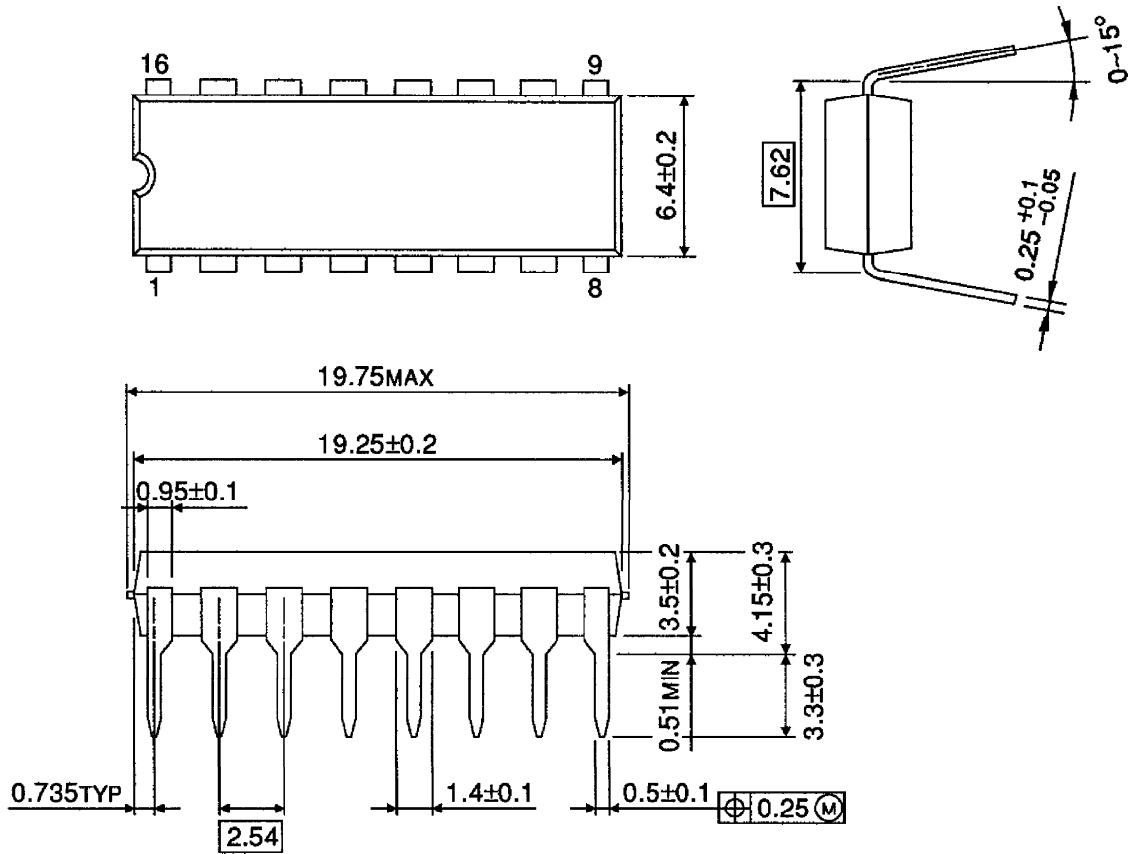
PRECAUTIONS for USING

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



OUTLINE DRAWING
DIP16-P-300-2.54A

Unit : mm



Weight : 1.11g (Typ.)