

AN6873N

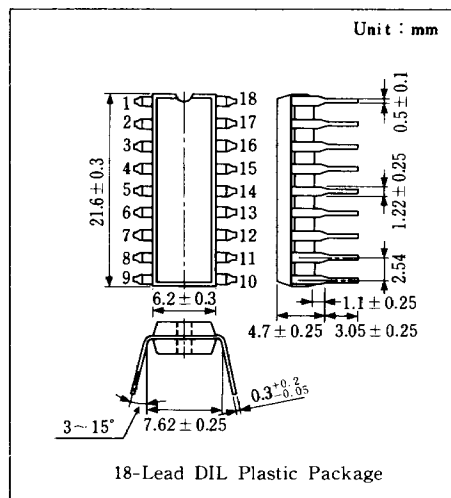
Fluorescent Display Tube Driver Circuit (8 Circuits)

■ Outline

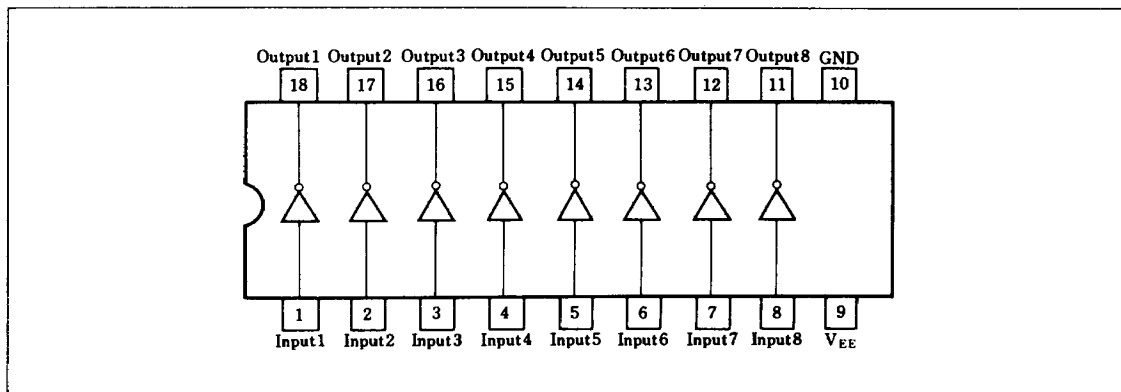
The AN6873N is an integrated circuit designed for driving fluorescent display tube at high breakdown operation.

■ Features

- Built-in 8 circuits
- Output incorporating pull-down resistor for direct fluorescent display drive
- Direct input for CMOS or TTL



■ Block Diagram



■ Pin

Pin No.	Pin Name	Pin No.	Pin Name
1	Ch.1 Input	10	GND
2	Ch.2 Input	11	Ch.8 Output
3	Ch.3 Input	12	Ch.7 Output
4	Ch.4 Input	13	Ch.6 Output
5	Ch.5 Input	14	Ch.5 Output
6	Ch.6 Input	15	Ch.4 Output
7	Ch.7 Input	16	Ch.3 Output
8	Ch.8 Input	17	Ch.2 Output
9	V _{EE}	18	Ch.1 Output

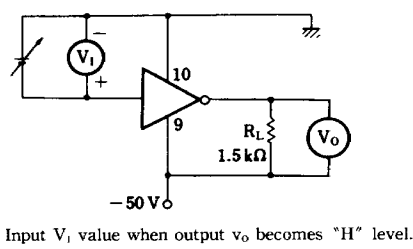
■ Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Rating	Unit
Supply Voltage	V _{EE}	-55	V
Supply Current	I _{CC}	-45	mA
Power Dissipation	P _D	500	mW
Operating Ambient Temperature	T _{opr}	-30 ~ +75	°C

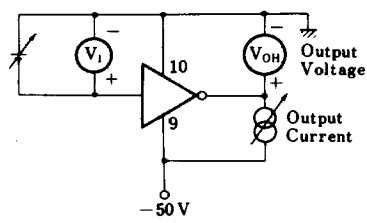
■ Electrical Characteristics (Ta=25°C)

Item	Symbol	Test Circuit	Condition	min.	typ.	max.	Unit
High Level Input Voltage	V _{IH}	1	V _{EE} = -50V, V _O ≤ -45V	-1.5			V
Low Level Input Voltage	V _{IL}	1	V _{EE} = -50V, V _O ≥ -3V			-4	V
High Level Input Current	I _{IH}	3	V _{EE} = -50V, V _I = -1.5V	-280	-70		μA
Low Level Input Current(1)	I _{IL1}	3	V _{EE} = -50V, V _I = -4V	-1.2	-0.25		mA
Low Level Input Current(2)	I _{IL2}	3	V _{EE} = -50V, V _I = -7V	-2.6	-0.6		mA
High Level Output Voltage	V _{OH}	2	V _{EE} = -50V, V _I = -4V, I _O = -40mA	-3	-1.5		V
Low Level Output Voltage	V _{OL}	2	V _{EE} = -50V, V _I = -1.5V, I _O = 0mA		-499	-45	V
Supply Current(1)	I _{CC(OFF)}	4	V _{EE} = -50V, V _I = -1.5V			1.3	mA
Supply Current(2)	I _{CC(ON)}	4	V _{EE} = -50V, V _I = -4V			12	mA

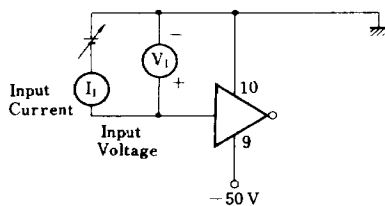
Test Circuit 1 (V_{IH}, V_{IL})



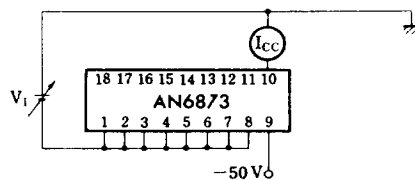
Test Circuit 2 (V_{OH}, V_{OL})



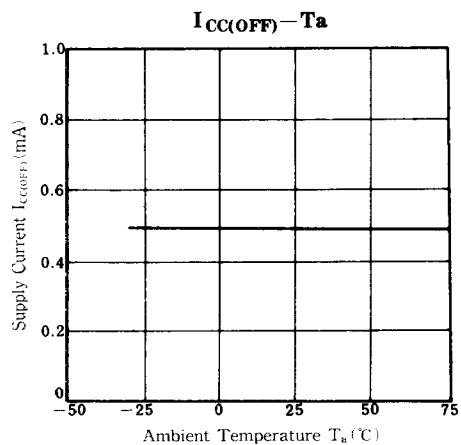
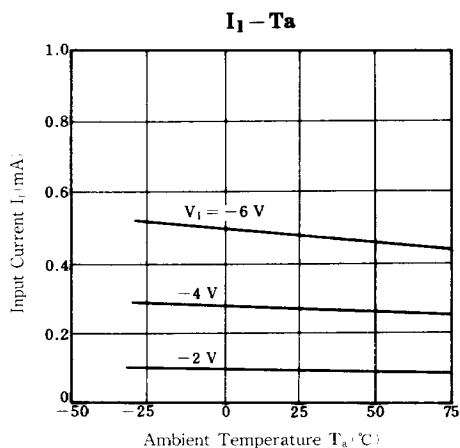
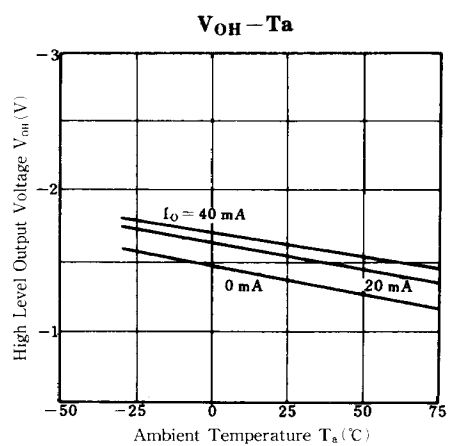
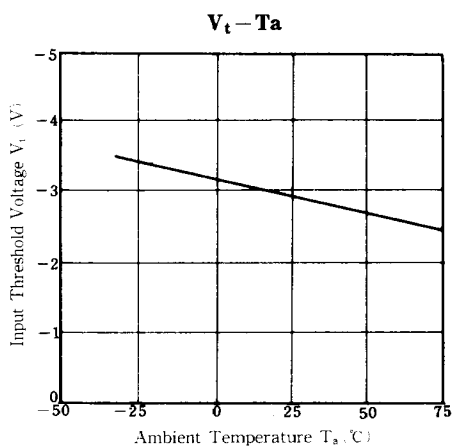
Test Circuit 3 (I_{IH} , I_{IL1} , I_{IL2})

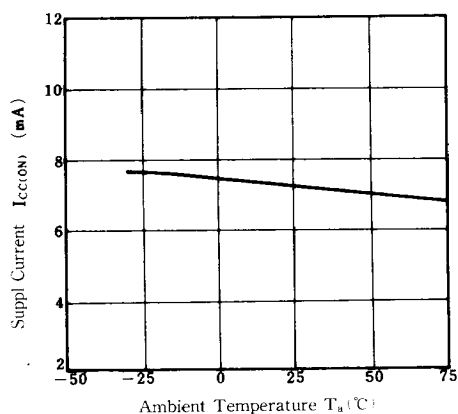


Test Circuit 4 ($I_{CC(OFF)}$, $I_{CC(ON)}$)

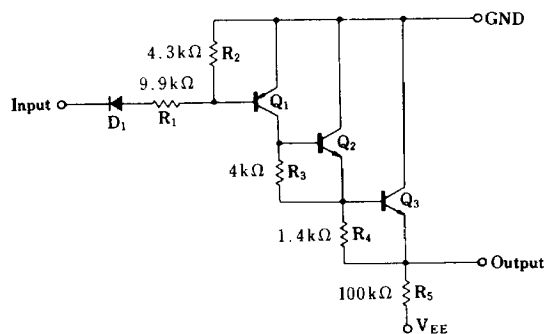


$I_{CC(OFF)}$: I_{CC} value when $V_I = 1.5\text{ V}$ at the circuit in the figure above
 $I_{CC(ON)}$: I_{CC} value when $V_I = 4.0\text{ V}$ at the circuit in the figure above.



$I_{CC(ON)} - T_a$ 

■ Schematic Diagram (1/8)



■ Application

