

AN6873

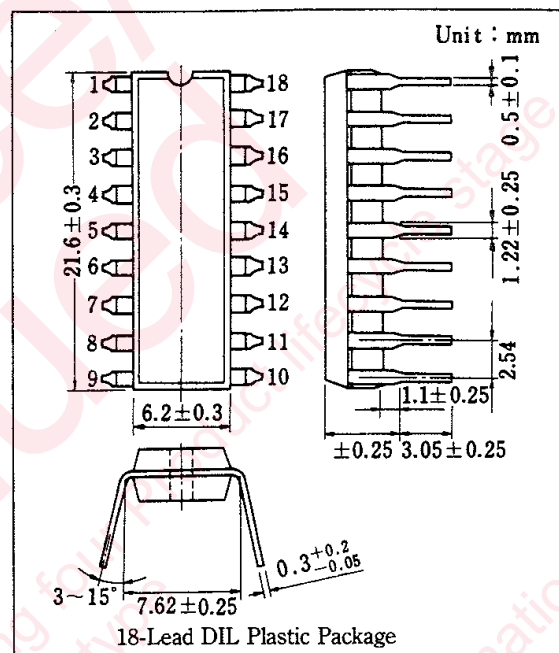
Fluorescent Display Tube Driver Circuit (8Circuits)

■ Outline

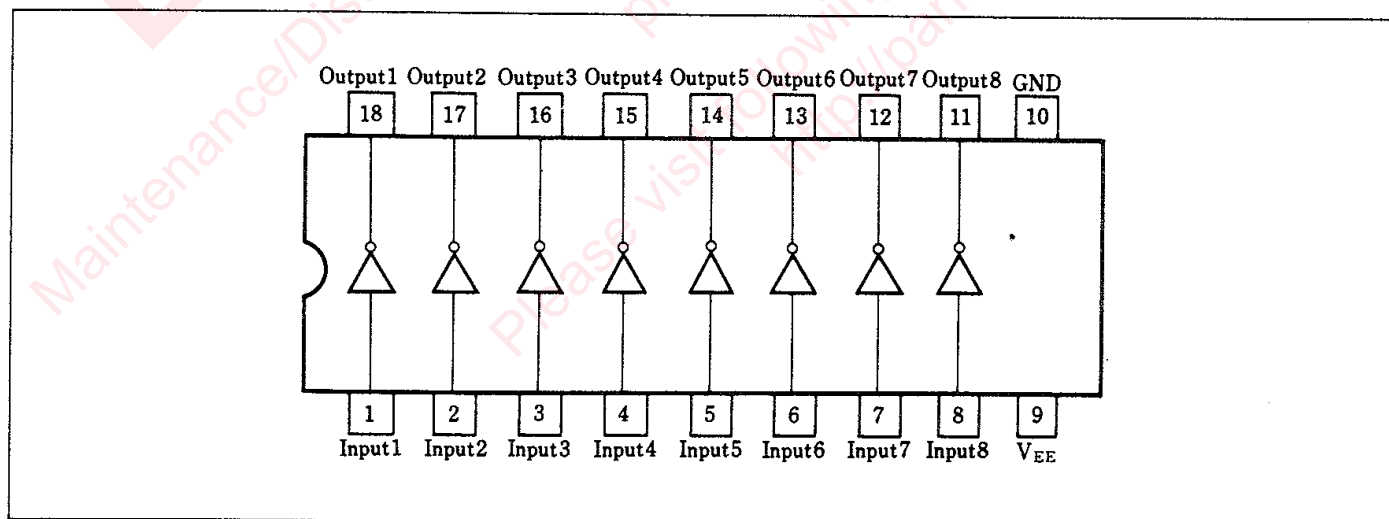
The AN6873 is an integrated circuit designed for high-breakdown fluorescent display tube drive.

■ Features

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



■ Block Diagram



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

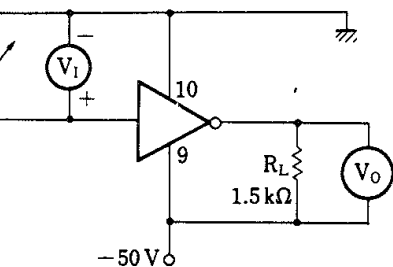
Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Rating	Unit
voltage	V _{EE}	-55	V
current	I _{CC}	-45	mA
dissipation	P _D	500	mW
ng ambient temperature	T _{opr}	-30 ~ +75	°C

Electrical Characteristics (Ta=25°C)

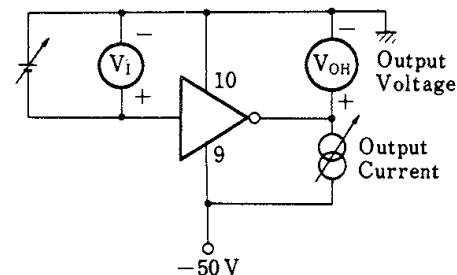
Item	Symbol	Test Circuit	Condition	min.	typ.	max.	Unit
vel input voltage	V _{IH}	1	V _{EE} = -50V, V _O ≤ -45V	-1.5			V
vel input current	V _{IL}	1	V _{EE} = -50V, V _O ≥ -3V			-4	V
vel input current	I _{IH}	3	V _{EE} = -50V, V _I = -1.5V	-280	-70		μA
vel input current(1)	I _{IL1}	3	V _{EE} = -50V, V _I = -4V	-1.2	-0.25		mA
vel input current(2)	I _{IL2}	3	V _{EE} = -50V, V _I = -7V	-2.6	-0.6		mA
vel output voltage	V _{OH}	2	V _{EE} = -50V, V _I = -4V, I _O = -40mA	-3	-1.5		V
vel output voltage	V _{OL}	2	V _{EE} = -50V, V _I = -1.5V, I _O = 0mA		-49.9	-45	V
current(1)	I _{CC(OFF)}	4	V _{EE} = -50V, V _I = -1.5V			1.3	mA
current(2)	I _{CC(ON)}	4	V _{EE} = -50V, V _I = -4V			12	mA

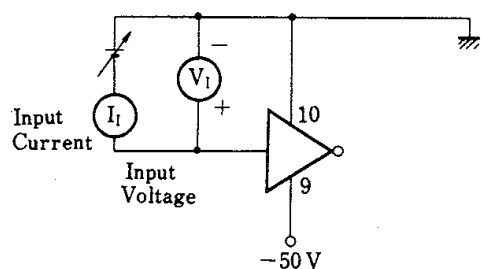
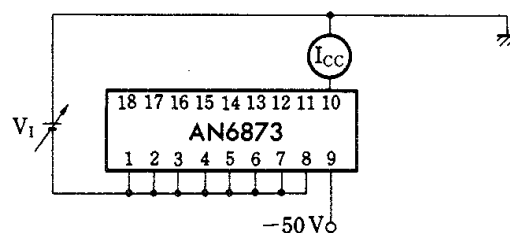
Circuit 1 (V_{IH}, V_{IL})



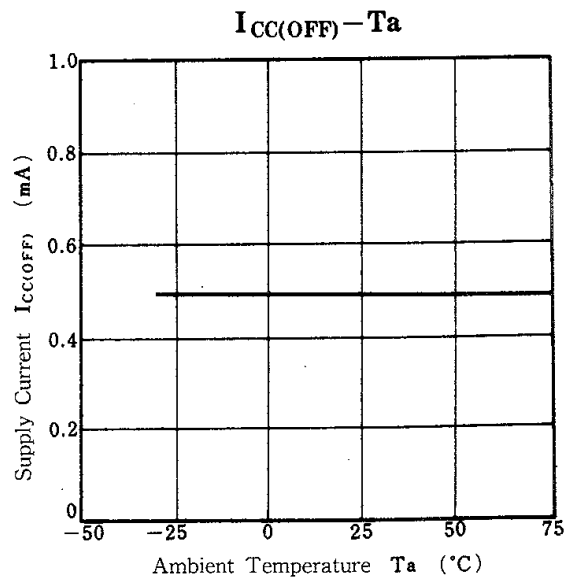
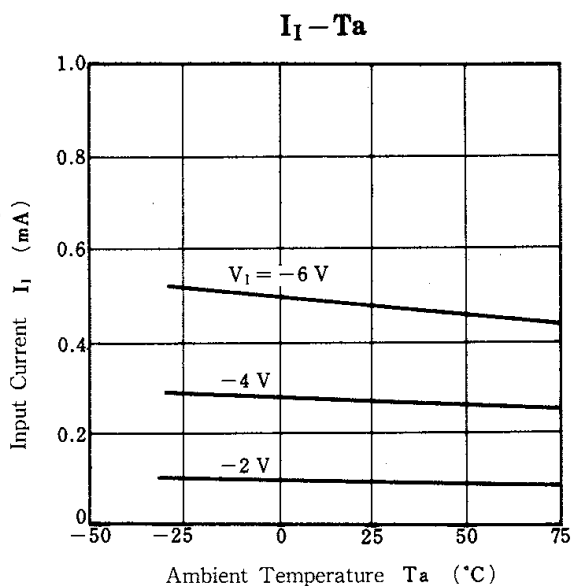
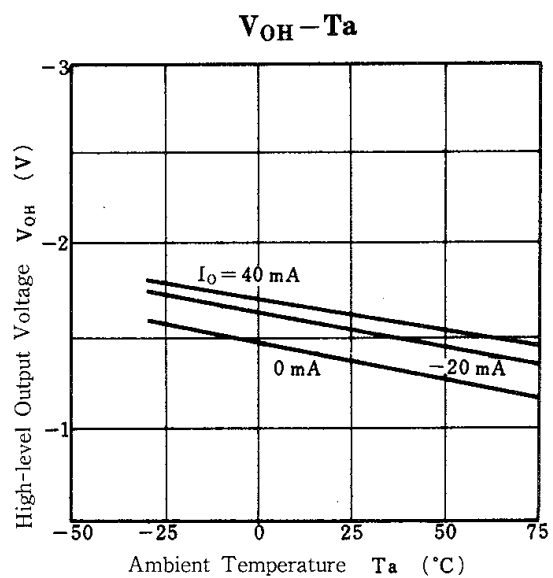
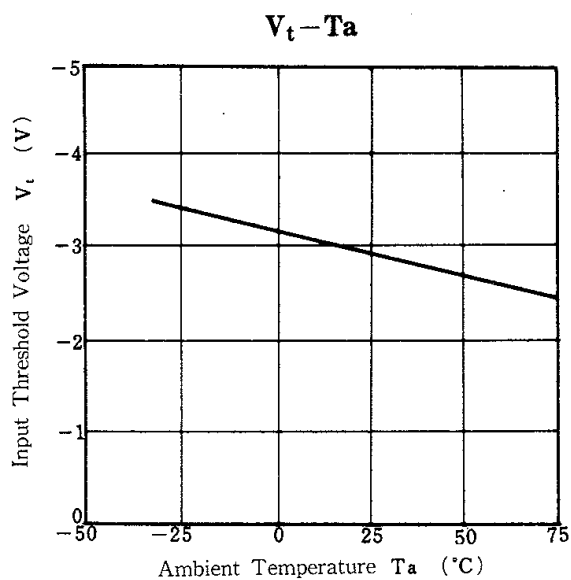
Value of input V₁ when output V₀ is turned to "H"

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

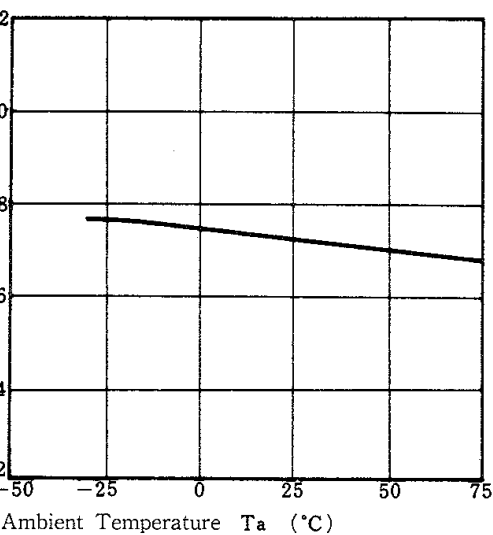


Test Circuit 3 (I_{IH} , I_{IL1} , I_{IL2})Test Circuit 4 ($I_{CC(OFF)}$, $I_{CC(ON)}$)

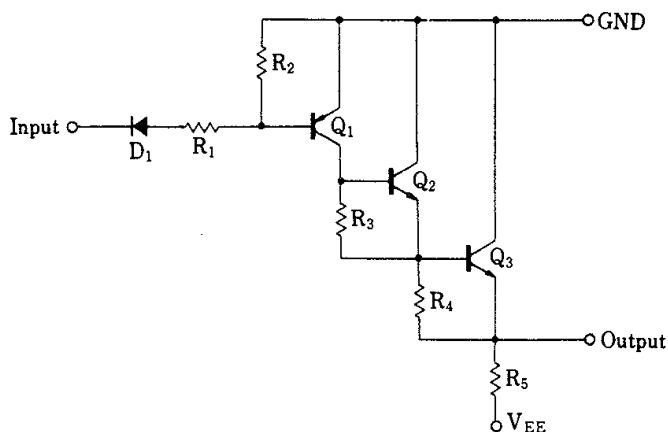
$I_{CC(OFF)}$: I_{CC} value when $V_I = 1.5V$ in the test circuit 4
 $I_{CC(ON)}$: I_{CC} value when $V_I = 4.0V$ in the test circuit 4



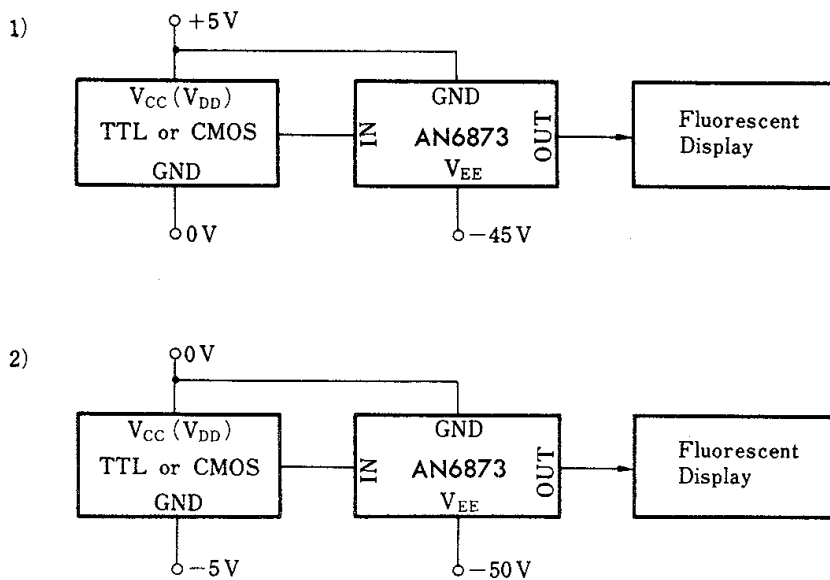
$I_{CC(ON)} - T_a$



■ Schematic Diagram (1/8)



Applications



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