AN6873N, AN6873NS

Fluorescent Display Tube Drive Circuit (8-circuit)

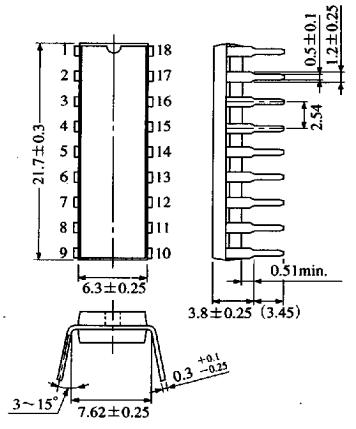
■ Overview

The AN6873N and AN6873NS are ICs designed for driving the high-breakdown fluorescent display tubes.

■ Features

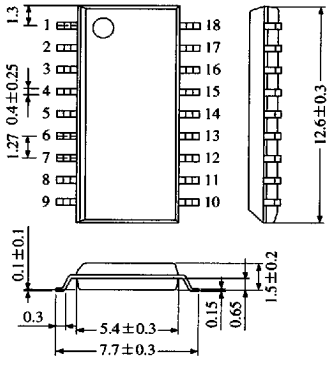
- Built-in 8-circuit
- Capable of directly driving the flourescent tubes because of built-in pull-down resistors
- CMOS or TTL input directly drivable

AN6873N Unit : mm



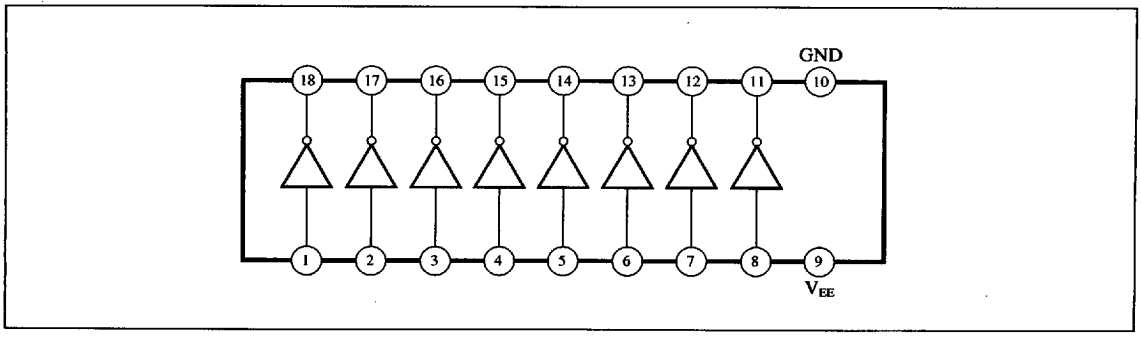
18-pin DIL Plastic Package (DIP018-P-0300E)

AN6873NS Unit : mm



18-pin DIL PANAFLAT Plastic Package (SOP018-P-0300)

■ Block Diagram



■ Pin Descriptions

Pin No.	Pin name	Pin No.	Pin name
1	Ch.1 input	10	Earth
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	Negative supply voltage	18	Ch.1 output

■ Absolute Maximum Ratings (Ta=25℃)

Parameter		Symbol	Rating	Unit
Supply voltage		V_{EE}	−55	V
Supply current		I_{CC}	−45	mA
Power dissipation	AN6873N	P_D	500	mW
	AN6873NS		420	
Storage temperature		T_{opr}	−30 to +75	℃
Operating ambient temperature	AN6873N	T_{stg}	−55 to +150	℃
	AN6873NS		−55 to +125	

■ Recommended Operating Range (Ta=25℃)

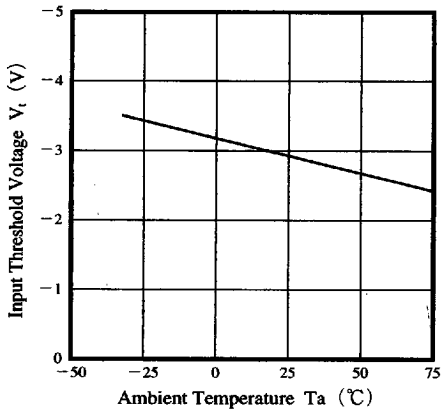
Parameter	Symbol	Range
Operating supply voltage range	V_{EE}	−50 to −15V

■ Electrical Characteristics (Ta=25℃)

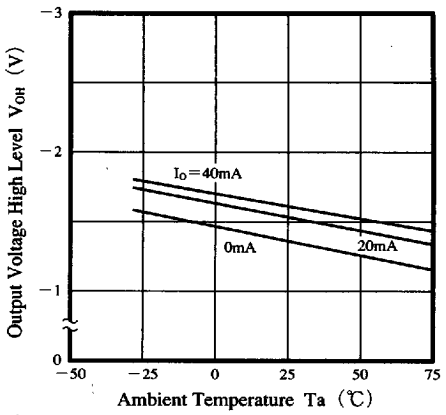
Parameter	Symbol	Condition	min	typ	max	Unit
Input voltage high level	V_{IH}	V_{EE}=−50V, V_O≦−45V	−1.5	—	—	V
Input voltage low level	V_{IL}	V_{EE}=−50V, V_O≧−3V	—	—	−4	V
Input current high level	I_{IH}	V_{EE}=−50V, V_I=−1.5V	−280	−70	—	μA
Input current low level (1)	I_{IL1}	V_{EE}=−50V, V_I=−4V	−1.2	−0.25	—	mA
Input current low level (2)	I_{IL2}	V_{EE}=−50V, V_I=−7V	−2.6	−0.6	—	mA
Output voltage high level	V_{OH}	V_{EE}=−50V, V_I=−4V, I_O=−40mA	−3	−1.5	—	V
Output voltage low level	V_{OL}	V_{EE}=−50V, V_I=−1.5V, I_O=0mA	—	−49.9	−45	V
Supply current (1)	$I_{CC(OFF)}$	V_{EE}=−50V, V_I=−1.5V	—	—	1.3	mA
Supply current (2)	$I_{CC(ON)}$	V_{EE}=−50V, V_I=−4V	—	—	12	mA

■ Characteristics Curve

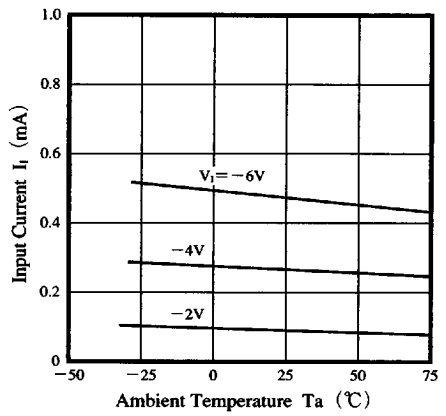
$V_t - Ta$



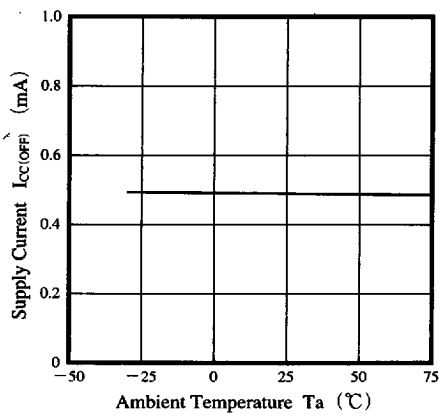
$V_{OH} - Ta$



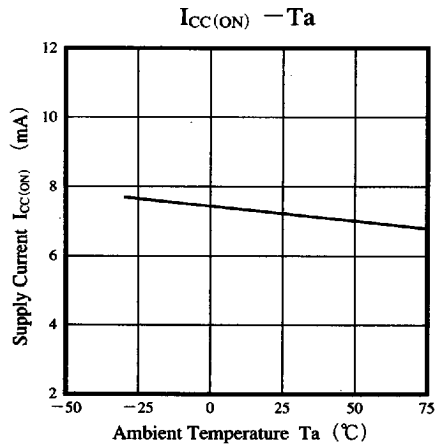
$I_I - Ta$



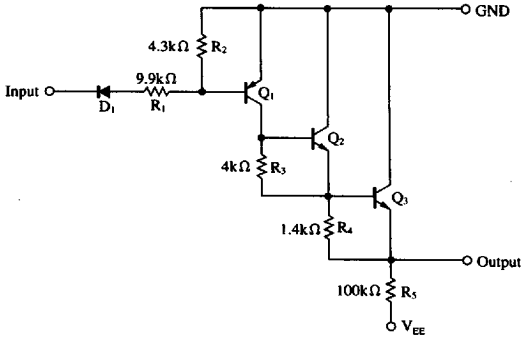
$I_{CC(OFF)} - Ta$



$I_{CC(ON)} - Ta$

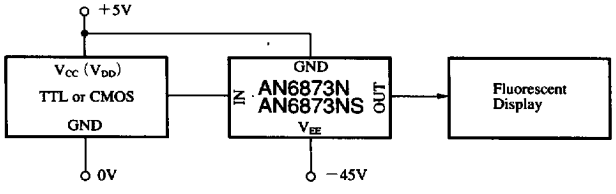


■ Equivalent Circuit (1/8 Circuit)



■ Application Circuit

1)



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