

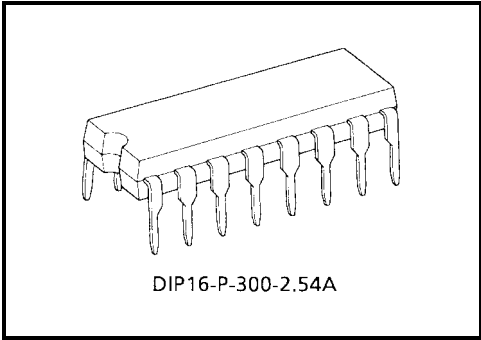
TA7612AP

LED Driver

The TA7612AP is designed for 10 LED level meter driver.

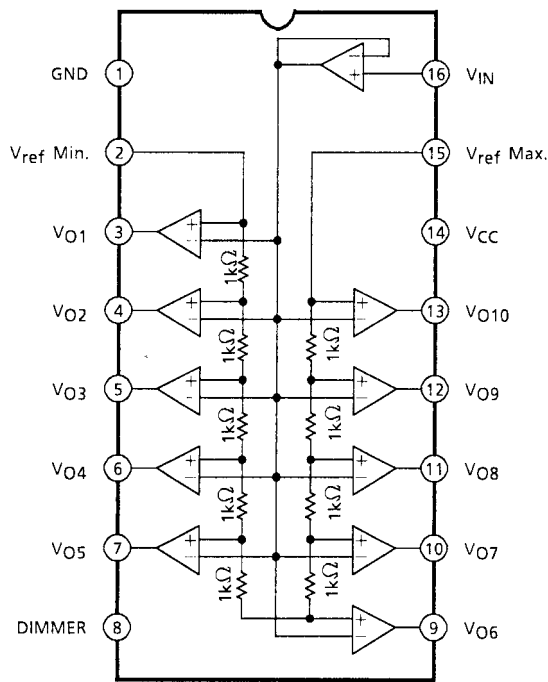
Features

- 10 LED's bar display driver.
- Linear scale display.
- Continuous 10 LED display.
- By choosing a series connection of IC, can display more than 10 LED.



Weight: 1.00 g (typ.)

Block Diagram (Note 1)

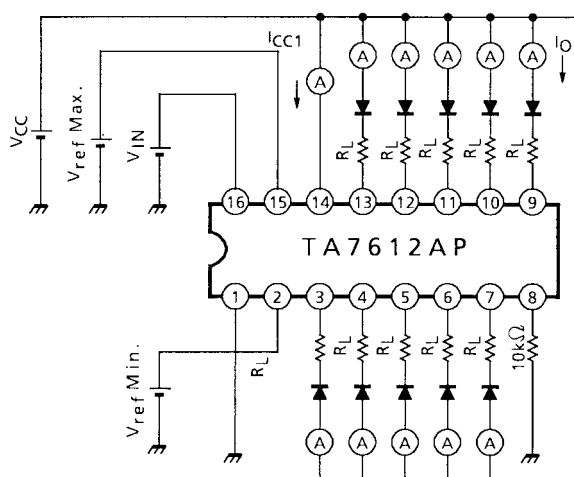


Note 1: ($V_{ref\ max} (= PIN\ 15) = 3.6\ V$)

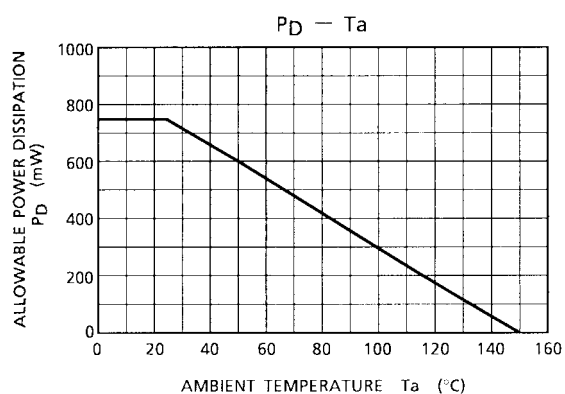
2 Pin Connection	Display	Condition
Terminated ground	Light on No.1 LED	$V_{IN} = 0 \sim 0.4\ V\ (typ.)$
	Lighted all LED	$V_{IN} \geq 3.6\ V\ (typ.)$
Terminated 1 kΩ between ground	Without lighted No.1 LED	$V_{IN} = 0 \sim 0.36\ V\ (typ.)$
	Light on No.1 LED	$V_{IN} \geq 0.36\ V\ (typ.)$

P_D Calculation At 10 LEDs

$$P_D = V_{CC} \times I_{CC1} + V_{OL} \times I_O \times 10 \text{ (W)}$$



Note: V_{OL} is: $V_{OL} = V_{CC} - V_F \text{ (LED)} - R_L \times I_O$ (When each output is "ON".)



Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Supply voltage	V _{CC}	20	V
Power dissipation (Note 2)	P _D	750	mW
Operating temperature	T _{opr}	-30~75	°C
Storage temperature	T _{stg}	-55~125	°C

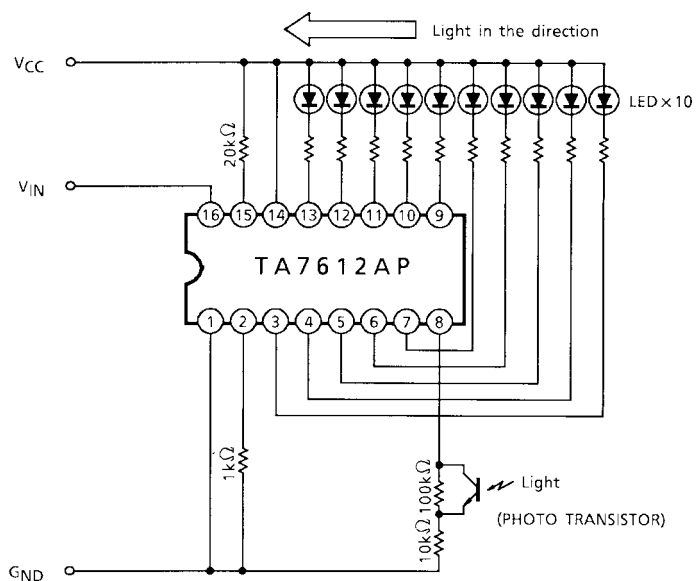
Note 2: Derated above Ta = 25°C in the proportion of 6 mW/°C.

Electrical Characteristics (Ta = 25°C, V_{CC} = 12 V)

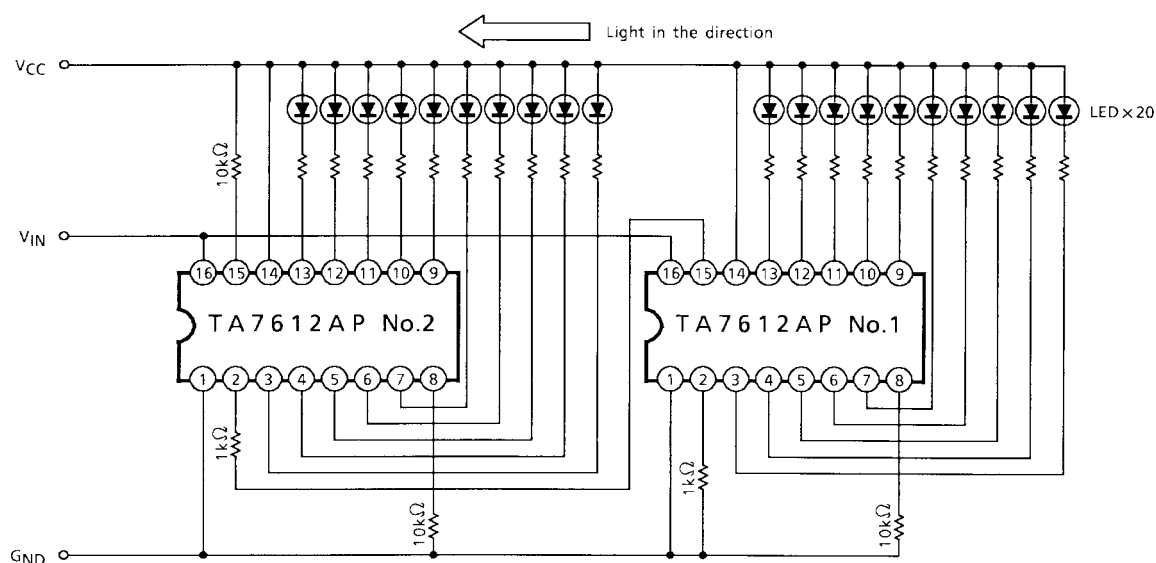
Characteristics	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Supply voltage	V _{CC}	—	—	6	12	15	V
Supply current (1)	I _{CC1}	—	V _{ref} = 4 V, V _{IN} = 0 V	—	15	20	mA
Supply current (2)	I _{CC2}	—	V _{ref} = 4 V, V _{IN} = 4.1 V I _O = 10 mA × 10	—	150	160	mA
Input bias current	R _{TOT}	—	—	7	9	11	kΩ
Internal resistance	I _{IN}	—	V _{IN} = GND	—	-0.25	-1	μA
Input voltage range	V _{IN}	—	—	0	—	8	V
Output offset voltage	V _{OFF}	—	V _{ref} = 4 V	-40	—	40	mV
Output voltage (high level)	V _{OH}	—	V _{ref} = 4 V, V _{IN} = GND R _L = 1.5 kΩ	11.9	11.93	—	V
Output voltage (low level)	V _{OL}	—	V _{ref} = 4 V, V _{IN} = 4.10 V R _L = 1.5 kΩ	—	0.6	1.0	V
Output current	I _O	—	V _{ref} = 4 V, V _{IN} = 4.10 V	—	7	12	mA
Leak current	I _{IL}	—	V _{IN} = 4 V V _{ref} Max = 0 V, V _{ref} Min = 0 V	—	—	15	μA

Application Circuit

10 LEDs applications



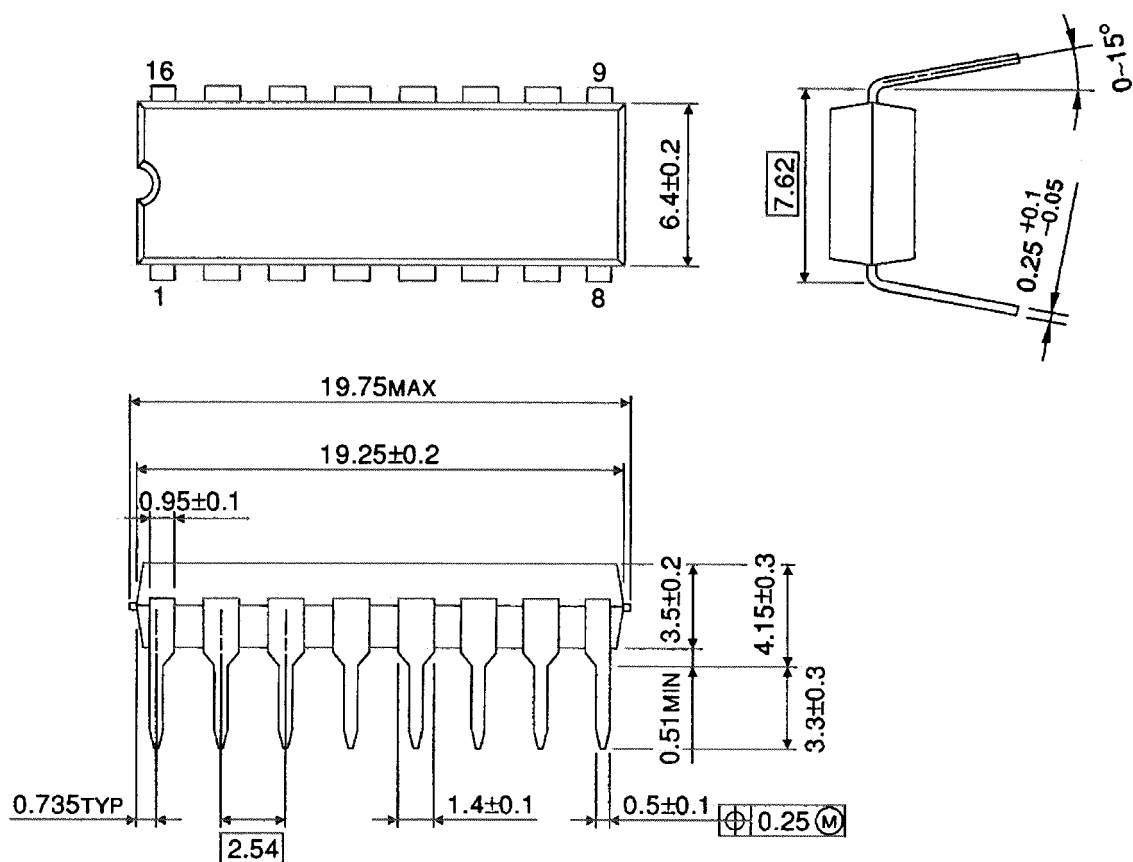
20 LEDs applications



Package Dimensions

DIP16-P-300-2.54A

Unit : mm



Weight: 1.00 g (typ.)

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