

8-channel high current driver

BA6212

The BA6212 is a monolithic IC including 8 circuits and capable of high current drive. Capable of using a current as high as 400mA, it has a strobe pin, and is thus ideal for use as a driver circuit in thermal printers. Its input can be directly coupled to CMOS devices.

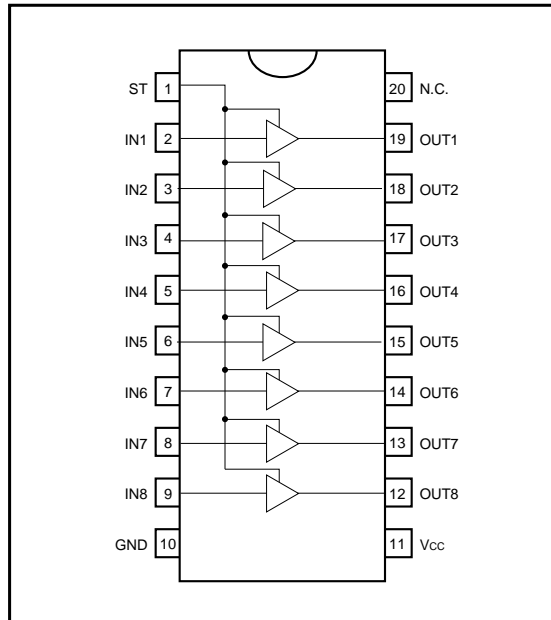
●Applications

- Thermal printers
- Motors
- Relays
- LEDs and other drivers

●Features

- 1) High current drive capability of 400mA (Max).
- 2) 8 circuits included.
- 3) Equipped with a strobe pin.
- 4) Easy installation due to inputs and outputs being aligned in the same direction.
- 5) Input can be directly connected to CMOS devices.

●Block diagram



● Absolute maximum ratings (Ta = 25°C)

| Parameter | Symbol | Limits | Unit |
|------------------------|------------------|-----------------|------|
| Power supply voltage | V _{CC} | 7 | V |
| Power dissipation | P _d | 1100* | mW |
| Operating temperature | T _{opr} | - 25 ~ + 75 | °C |
| Storage temperature | T _{stg} | - 55 ~ + 125 | °C |
| Maximum output current | I _{OUT} | 400 | mA |
| Maximum output voltage | V _{OUT} | 14 | V |
| Maximum input voltage | V _{IN} | V _{CC} | V |

* Reduced by 11mW for each increase in Ta of 1°C over 25°C.

● Internal circuit configuration

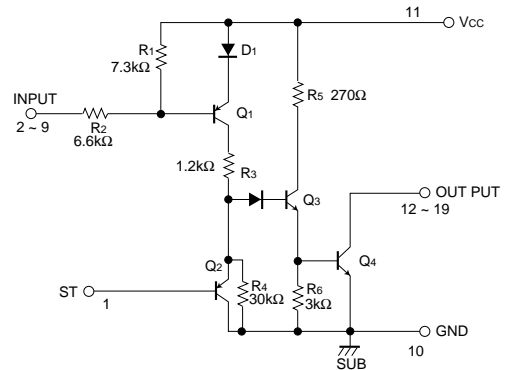


Fig. 1

● Electrical characteristics (unless otherwise noted, Ta = 25°C, V_{CC} = 5V)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-----------------------------|-------------------|------|-------|------|------|--|
| Output saturation voltage 1 | V _{OUT1} | — | 0.2 | 0.3 | V | I _{OUT} = 200mA, V _{IN} = 1V |
| Output saturation voltage 2 | V _{OUT2} | — | 0.4 | 0.6 | V | I _{OUT} = 400mA, V _{IN} = 1V |
| Output leakage current 1 | I _{OL1} | — | — | 100 | μA | V _{IN} = 3.6V, V _{OUT} = 12V |
| Output leakage current 2 | I _{OL2} | — | — | 100 | μA | V _{IN} = 1V, V _{OUT} = 12V, V _{ST} = 0.3V |
| Input current | I _{IN} | — | - 0.5 | - 1 | mA | V _{IN} = 0V, I _{OUT} = 0mA |
| Input low level voltage | V _{IL} | — | — | 1 | V | — |
| Input high level voltage | V _{IH} | 3.6 | — | — | V | — |

● Application example

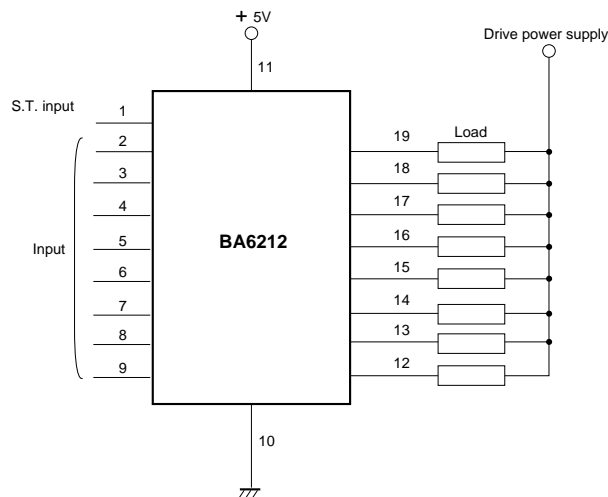


Fig. 2

●Electrical characteristic curves

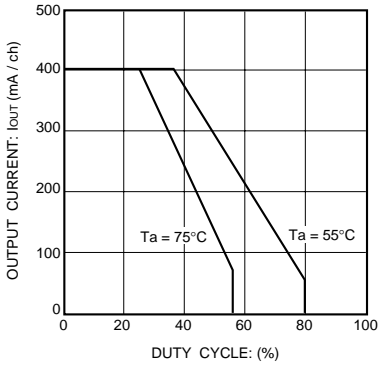


Fig. 3 Maximum output current when all channels are ON simultaneously

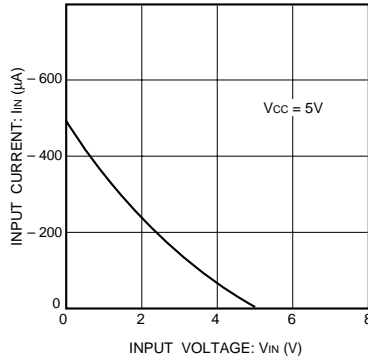


Fig. 4 Input current characteristics

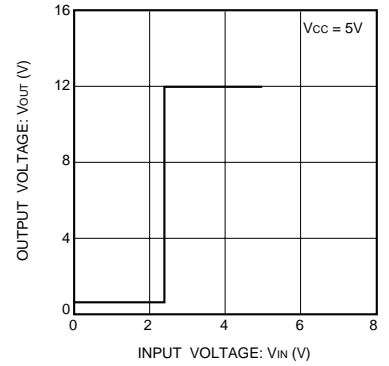


Fig. 5 Input threshold voltage characteristics

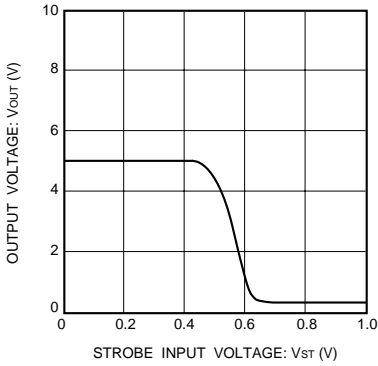


Fig. 6 Strobe input characteristics

●External dimensions (Units: mm)

