



LB1258

7-Unit, Low-Saturation Driver

Overview

The LB1258 is a 7-unit driver array with large current, low saturation output. It is suited for low voltage, large current drivers.

Features

- Large current capacity (500mA) and low saturation voltage (0.65V max).
- Especially suited for battery-powered printer drivers of various types and general-purpose 7-unit large current & low saturation voltage drivers.

Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|---------------------|-----------------------------------|---------------|------------------|
| Maximum supply voltage | $V_{CC\text{ max}}$ | | -0.3 to +7.0 | V |
| Output supply voltage | V_{OUT} | | -0.3 to +10.0 | V |
| Input supply voltage | V_{IN} | | -0.3 to +7.0 | V |
| Maximum output current | I_{OUT} | Per unit, pulse width \leq 35ms | 500 | mA |
| GND pin flow-out current | I_{GND} | Pulse width \leq 35ms | 3000 | mA |
| Allowable power dissipation | $P_d\text{ max}$ | | 960 | mW |
| Operating temperature | T_{opr} | | -20 to +75 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | | -40 to +125 | $^\circ\text{C}$ |

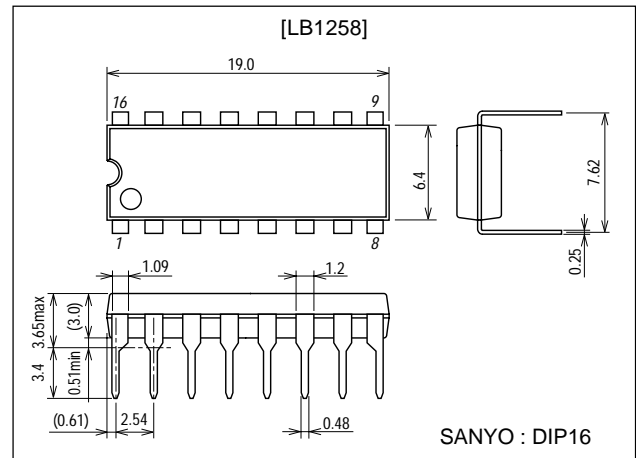
Allowable Operating Ranges at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------|----------|------------------------------|--------------|------|
| Supply voltage | V_{CC} | | 2.5 to 6.0 | V |
| Input H-level voltage | V_{IH} | $I_{OUT}=150\text{mA}$ | 2.5 to 7.0 | V |
| Input L-level voltage | V_{IL} | $I_{OUT}\leq 100\mu\text{A}$ | -0.3 to +0.7 | V |

Package Dimensions

unit:mm

3006C-DIP16



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SANYO Electric Co., Ltd. Semiconductor Company

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

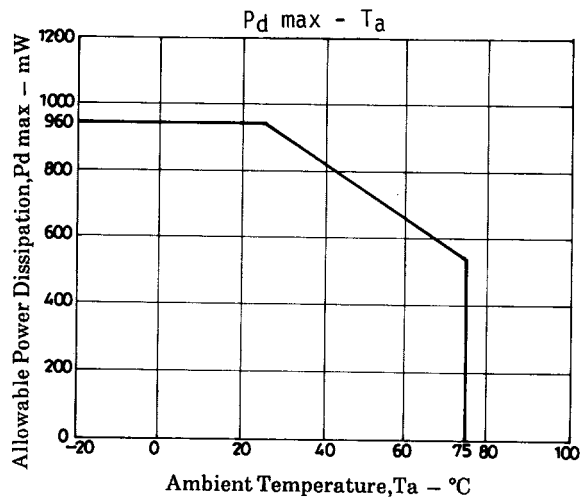
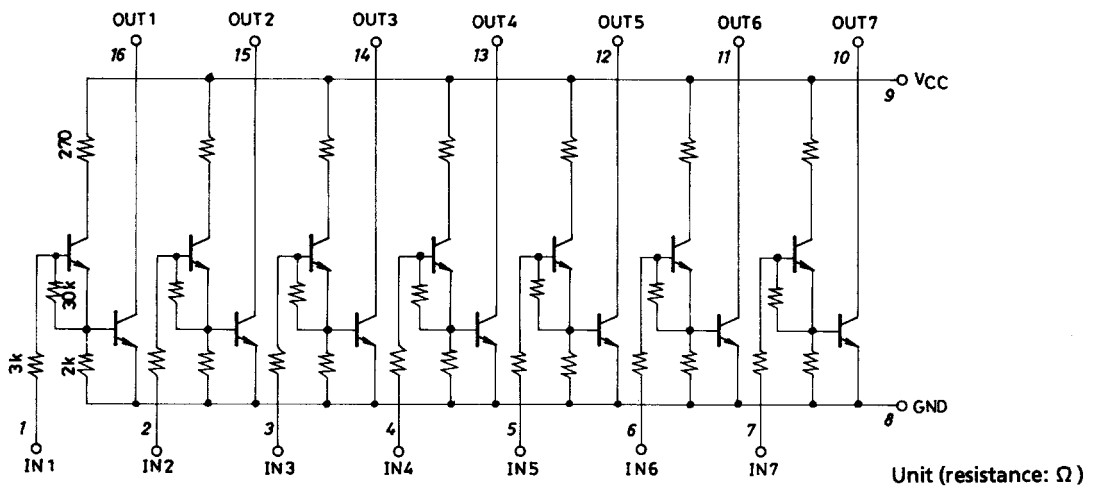
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LB1258

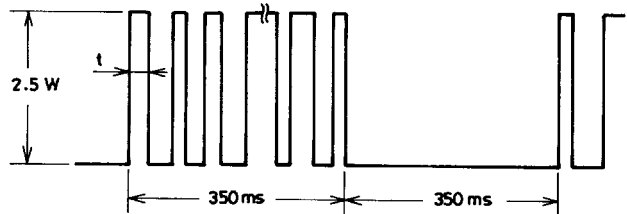
Electrical Characteristics at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|-------------------------------|--------------|--|---------|-----|------|---------------|
| | | | min | typ | max | |
| Output voltage | V_{OUT1} | $V_{IN}=3.0\text{V}, V_{CC}=3.5\text{V}, I_{OUT}=200\text{mA}$ | | | 0.25 | V |
| | V_{OUT2} | $V_{IN}=5.5\text{V}, V_{CC}=6.0\text{V}, I_{OUT}=400\text{mA}$ | | | 0.5 | V |
| | V_{OUT3} | $V_{IN}=5.5\text{V}, V_{CC}=6.0\text{V}, I_{OUT}=500\text{mA}$ | | | 0.65 | V |
| Output sustain voltage | $V_{O(SUS)}$ | V_{IN} : open, $I_{OUT}=400\text{mA}, t \leq 10\mu\text{s}$ | 10 | | | V |
| Supply+output leakage current | $I_{(OFF)}$ | $V_{IN}=0.5\text{V}, V_{OUT}=V_{CC}=6.0\text{V}$ | | | 30 | μA |
| Input current | I_{IN} | $V_{IN}=6.0\text{V}, I_{OUT}=0$ | | | 2.5 | mA |

Equivalent Circuit



Dissipation for the following waveform at $T_a = 60^\circ\text{C}$.



$t \leq 35\text{ms}$ and 40% 350ms duty ($\overline{P_d} = 0.5\text{W}$)

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