



# LB1246

## Active-Low Input Printer Driver

### Overview

The LB1246 is a 7-channel driver array with large current, low saturation output and contains a motor driver with brake circuit. It is suited for use in low active input, low voltage, large current driver applications.

### Features

- Low active input type.
- Large current capacity (400mA) and low saturation output voltage (0.5V max at 400mA).
- Motor driver with spark killer.
- Input protecting diode.
- Especially suited for battery-operated printer drivers of various types.

### 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	V
Input supply voltage	$V_{IN}$	$GND \leq V_{IN}$	$V_{CC} - 7.0$ to $V_{CC} + 15$	V
Output current	$I_{OUT}$	Per unit	400	mA
Spark killer diode forward current	$I_{FSM}$	Pulse width $\leq 35\text{ms}$ , duty 5%	400	mA
GND pin current	$I_{GND}$	Pulse width $\leq 35\text{ms}$	3200	mA
Instantaneous current drain	$I_{CCP}$	Pulse width $\leq 35\text{ms}$ , duty 5%	400	mA
Allowable power dissipation	$P_d\text{ max}$		1130	mW
Operating temperature	$T_{opr}$		-20 to +75	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +125	$^\circ\text{C}$

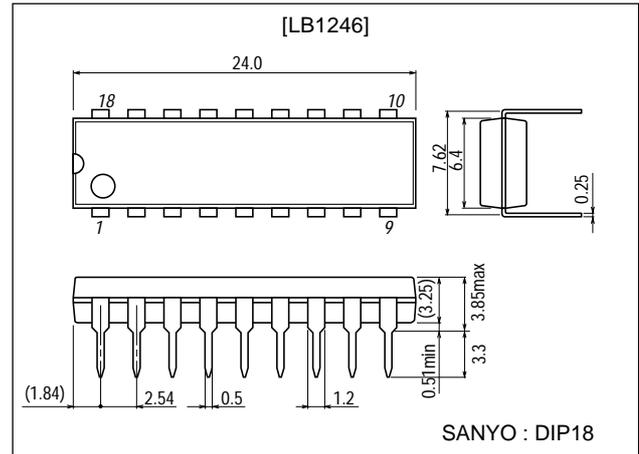
#### Allowable Operating Ranges at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	$V_{CC}$		2.3 to 6.0	V
Input H-level voltage	$V_{IH}$	$GND \leq V_{IN}$ , $I_{OUT} = 200\text{mA}$	$V_{CC} - 6.0$ to $V_{CC} - 2.3$	V
Input L-level voltage	$V_{IL}$	$I_{OUT} \leq 100\mu\text{A}$	$V_{CC} - 0.7$ to $V_{CC} + 15$	V

### Package Dimensions

unit:mm

3007B-DIP18



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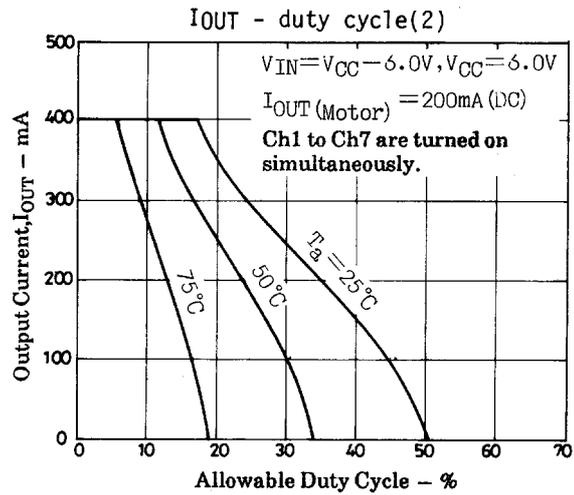
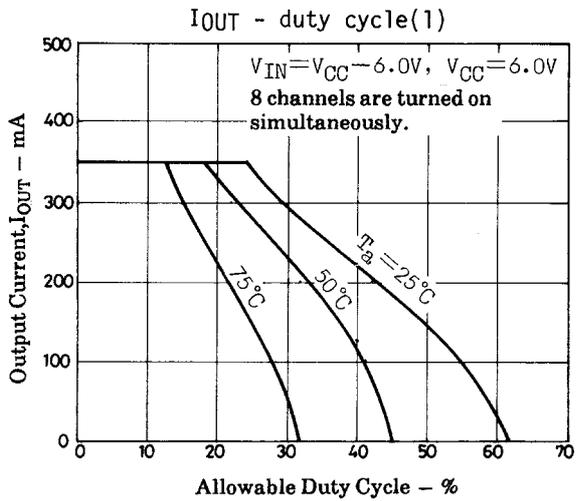
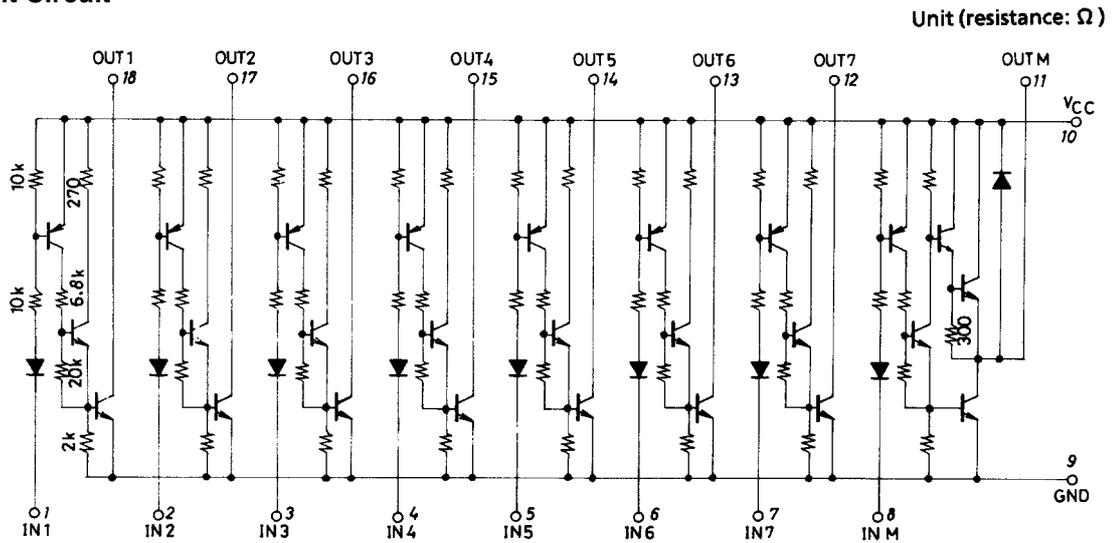
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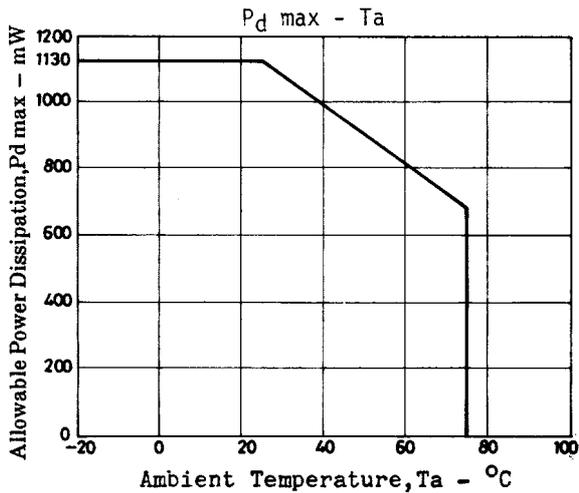
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## Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output voltage	$V_{OUT1}$	$V_{CC}=2.3\text{V}, V_{IN}=V_{CC}-2.3\text{V}, I_{OUT}=200\text{mA}$			0.4	V
	$V_{OUT2}$	$V_{CC}=3.5\text{V}, V_{IN}=V_{CC}-3.0\text{V}, I_{OUT}=200\text{mA}$			0.25	V
	$V_{OUT3}$	$V_{CC}=6.0\text{V}, V_{IN}=V_{CC}-5.5\text{V}, I_{OUT}=400\text{mA}$			0.25	V
Output sustain voltage	$V_{O(SUS)}$	$I_{OUT}=400\text{mA}$	10			V
Input current	$I_{IN}$	$V_{CC}=6.0\text{V}, V_{IN}=V_{CC}-6.0\text{V}$	-1.0			mA
Supply leakage current	$I_{CC(OFF)}$	$V_{IN}=V_{CC}=6.0\text{V}$			20	$\mu\text{A}$
Output leakage current	$I_{OFF}$	$V_{OUT}=V_{CC}=6.0\text{V}, V_{IN}=V_{CC}=-0.7\text{V}$			100	$\mu\text{A}$
Spark killer diode forward voltage	$V_{F(S)}$	$I_{F(S)}=400\text{mA}$			3.0	V

## Equivalent Circuit





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