



LB1256 — Monolithic Digital IC 7-Unit Driver Array with Motor Driver

Overview

The LB1256 is a 7-unit driver array, possessing high-current, low-saturating outputs. It has a motor driver circuit equipped with a brake circuit. It is suited for low-voltage, high-current driver use.

Features

- Has a large current capacity (400mA) and low saturation voltage (0.5V max).
- Has a motor driver with a spark suppressor.
- Ideal for various battery-operated preprinter drivers.

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC\ max}$		-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 $\leq 35\text{ms}$	400	mA
Maximum forward current	I_{FSM}	Spark killer diode, pulse width $< 35\text{ms}$, duty 5%	700	mA
GND pin flow-out current	I_{GND}	Pulse width $< 35\text{ms}$	3000	mA
Instantaneous current drain	I_{CCP}	Pulse width $< 35\text{ms}$, duty 5%	700	mA
Allowable power dissipation	$P_d\ max$	$T_a = 55^\circ\text{C}$	700	mW
Operating temperature	T_{opr}		-20 to +75	$^\circ\text{C}$
Storage temperature	T_{stg}		-40 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V_{CC}		2.0 to 6.0	V
Input H-level voltage	V_{IH}	$I_{OUT} = 150\text{mA}$	2.0 to 7.0	V
Input L-level voltage	V_{IL}	$I_{OUT} = 100\mu\text{A}$	-0.3 to +0.7	V

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LB1256

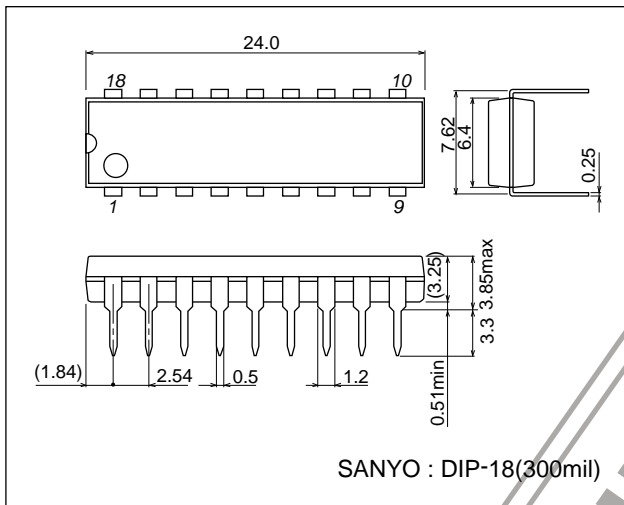
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output voltage	V _{OUT1}	V _{IN} = 2.0V, V _{CC} = 2.0V, I _{OUT} = 150mA			0.30	V
	V _{OUT2}	V _{IN} = 3.0V, V _{CC} = 3.5V, I _{OUT} = 200mA			0.25	V
	V _{OUT3}	V _{IN} = 5.5V, V _{CC} = 6.0V, I _{OUT} = 400mA			0.50	V
Output sustain voltage	V _{O(sus)}	V _{IN} : open, I _{OUT} = 400mA, t ≤ 10μs	10			V
Output leakage current	I _{OFF}	V _{IN} = 0.7V, V _{CC} = 6V			100	μA
Input current	I _{IN}	V _{IN} = 6.0V, I _{OUT} = 0			2.5	mA
Spark killer diode forward voltage	V _{F(S)}	I _{F(S)} = 400mA			3.0	V

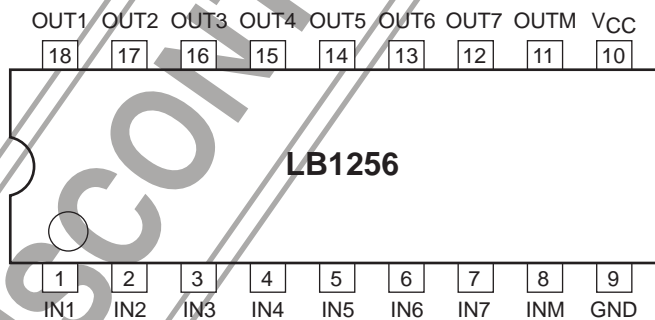
Package Dimensions

unit : mm (typ)

3007B

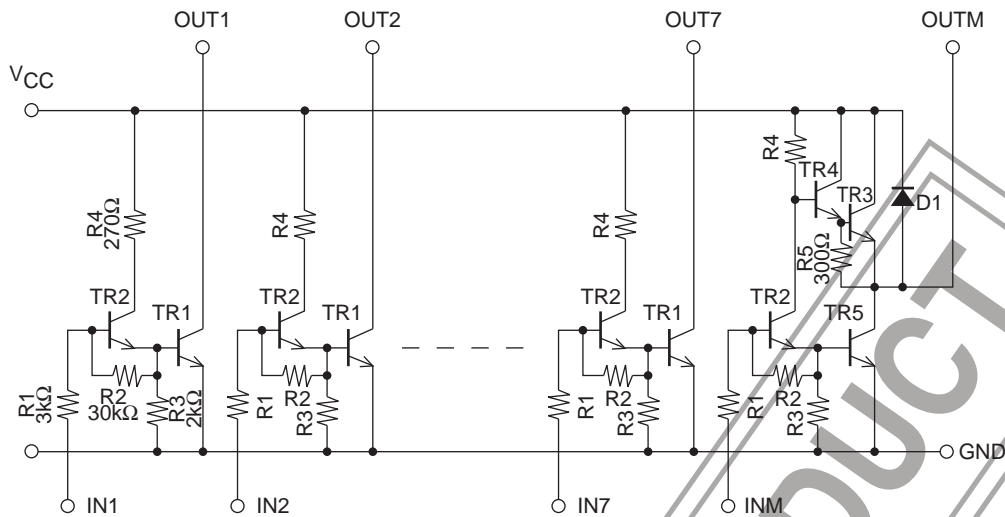


Pin Assignment



Top view

Equivalent Circuit



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