Ordering number : EN886F

SANYO Semiconductors
DATA SHEET

Monolithic Digital IC

LB1256 — 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 preinter drivers.

Specifications

Absolute Maximum Ratings at Ta = 25°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 ≤ 35ms	400	mA
Maximum forward current	I_{FSM}	Spark killer diode, pulse width < 35ms, duty 5%	700	mA
GND pin flow-out current	I_{GND}	Pulse width < 35ms	3000	mA
Instantaneous current drain	I_{CCP}	Pulse width < 35ms, duty 5%	700	mA
Allowable power dissipation	Pd max	Ta = 55°C	700	mW
Operating temperature	Topr		-20 to +75	°C
Storage temperature	Tstg		-40 to +125	°C

Allowable Operating Ratings at Ta = 25°C

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

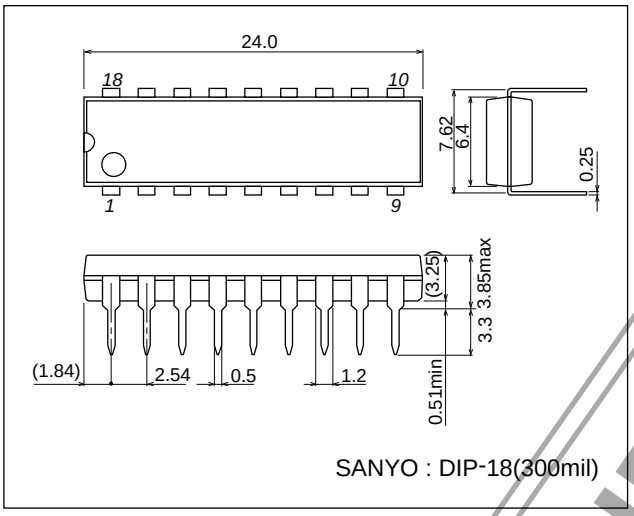
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output voltage	$V_{OUT}1$	V_{IN} = 2.0V, V_{CC} = 2.0V, I_{OUT} = 150mA			0.30	V
	$V_{OUT}2$	V_{IN} = 3.0V, V_{CC} = 3.5V, I_{OUT} = 200mA			0.25	V
	$V_{OUT}3$	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

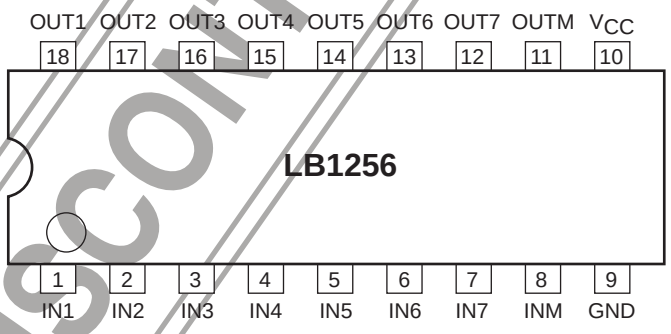
unit : mm (typ)

3007B



SANYO : DIP-18(300mil)

Pin Assignment



Top view

Equivalent Circuit