



# LB1256M

## Printer Driver

### Overview

The LB1256M is a 7-unit driver array possessing high-current, low-saturation outputs. It has a motor driver circuit equipped with a brake circuit. It is suited for low-voltage, high-current drivers.

### Features

- Large current capacity (400mA) and low saturation voltage (0.5V max).
- Motor driver with a spark killer.
- Suited for various battery-operated printer 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	560	mA
Spark killer diode forward current	$I_{FSM}$	Pulse width $\leq$ 35ms, duty=5%	700	mA
GND pin flow-out current	$I_{GND}$		*3.4	A
Instantaneous current drain	$I_{CCP}$	Pulse width $<$ 35ms, duty 5%	700	mA
Allowable power dissipation	$P_d\ max$		370	mW
Operating temperature	$T_{opr}$		-20 to +75	°C
Storage temperature	$T_{stg}$		-40 to +125	°C

\* : Both pins 1 and 10 must be grounded.

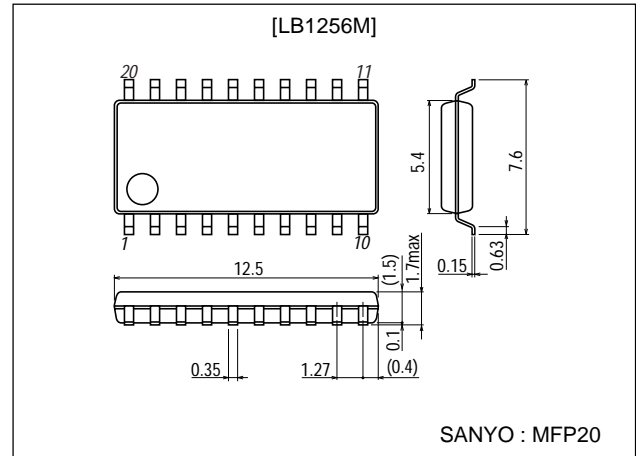
#### Allowable Operating Ranges at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	$V_{CC}$		2.0 to 6.0	V
Input H-level voltage	$V_{IH}$	$I_{OUT}=150\text{mA}$	2.0 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

3036C-MFP20



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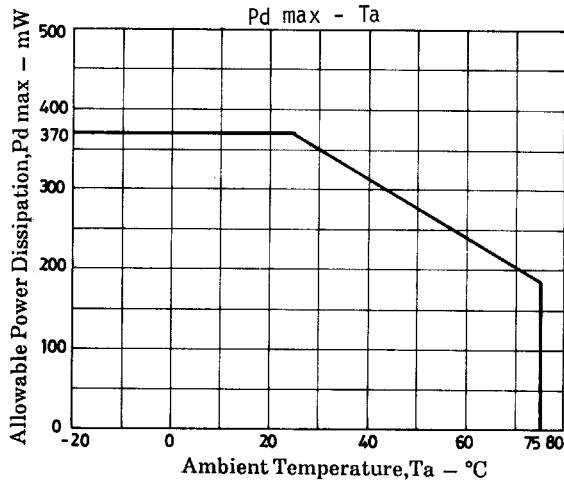
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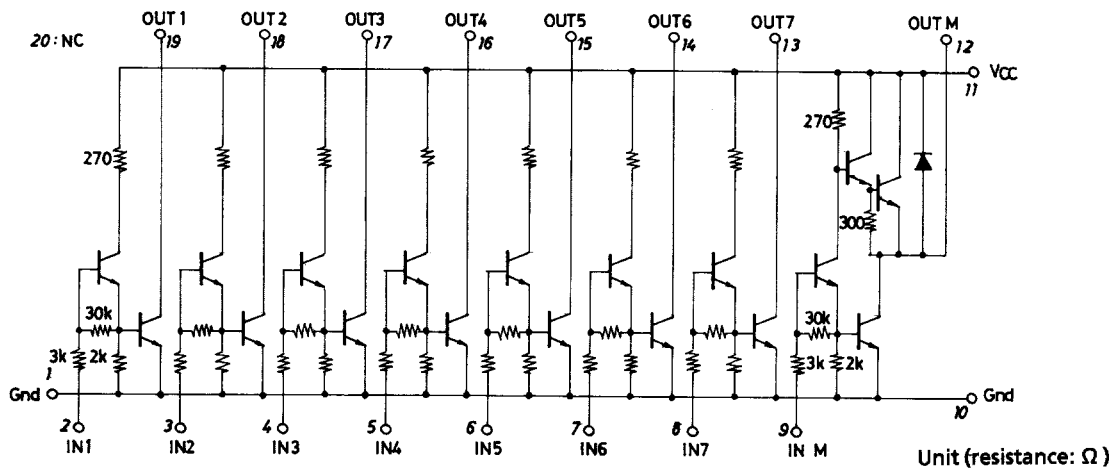
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## Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output voltage	$V_{OUT1}$	$V_{IN}=V_{CC}=2.0\text{V}, I_{OUT}=150\text{mA}$			0.30	V
	$V_{OUT2}$	$V_{IN}=3.0\text{V}, V_{CC}=3.5\text{V}, I_{OUT}=200\text{mA}$			0.25	V
	$V_{OUT3}$	$V_{IN}=3.5\text{V}, V_{CC}=5.0\text{V}, I_{OUT}=450\text{mA}$			0.60	V
Output sustain voltage	$V_{O(sus)}$	$I_{OUT}=400\text{mA}$	10			V
Input current	$I_{IN}$	$V_{IN}=6.0\text{V}$			2.5	mA
Output leakage current	$I_{OFF}$	$V_{IN}=0.7\text{V}, V_{CC}=V_{OUT}=6.0\text{V}$			100	$\mu\text{A}$
Spark killer diode forward voltage	$V_{Fs}$	$I_{Fs}=400\text{mA}$			3.0	V



## Equivalent Circuit



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