



# LB1265, 1265M

## 8-Channel Low-Saturation Driver

### Overview

The LB1265, 1265M are 8-channel low saturation driver arrays having a strobe pin.

### Applications

- Drive of various relays.
- Drive of display elements such as LED, lamp.
- Interface.
- Drive of small-sized printers.

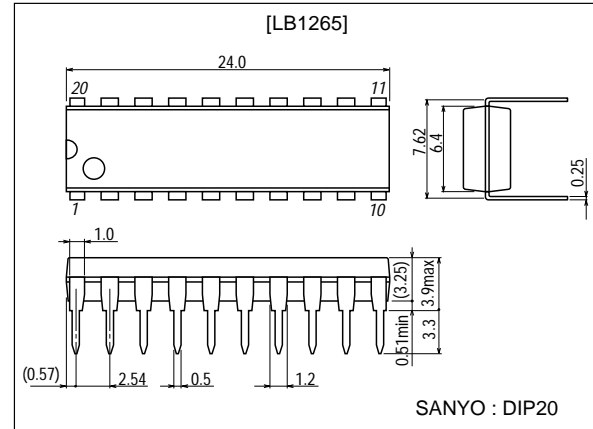
### Features

- Low saturation output (0.3V max. at 80mA).
- With a strobe pin.
- On-chip spark killer diodes.
- DIP20 package for high power use ; MFP20 package for small-sized use.

### Package Dimensions

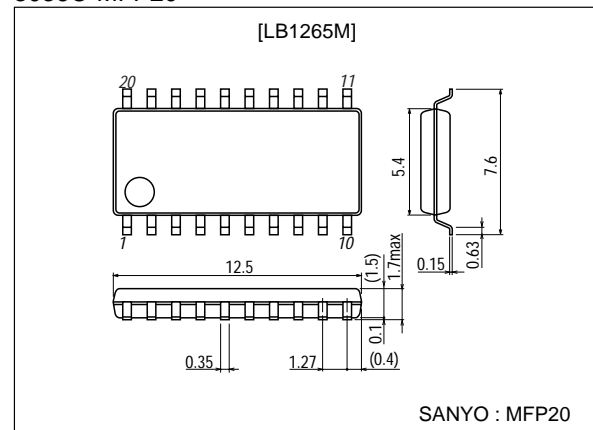
unit:mm

3021C-DIP20



unit:mm

3036C-MFP20



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## Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC1}$		7.0	V
	$V_{CC2}$		25	V
Output supply voltage	$V_{OUT}$		28	V
Input supply voltage	$V_{IN}$		7.0	V
Strobe input supply voltage	$V_{I(ST)}$		7.0	V
Output current	$I_{OUT}$		100	mA
Spark killer diode forward current	$I_{F(S)}$	Pulse width $\leq 35\text{ms}$ , duty=5%	100	mA
Allowable power dissipation	Pd max	LB1265 : DIP20	1130	mW
		LB1265M : MFP20	300	mW
Operating temperature	$T_{opr}$		-20 to +75	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +125	$^\circ\text{C}$

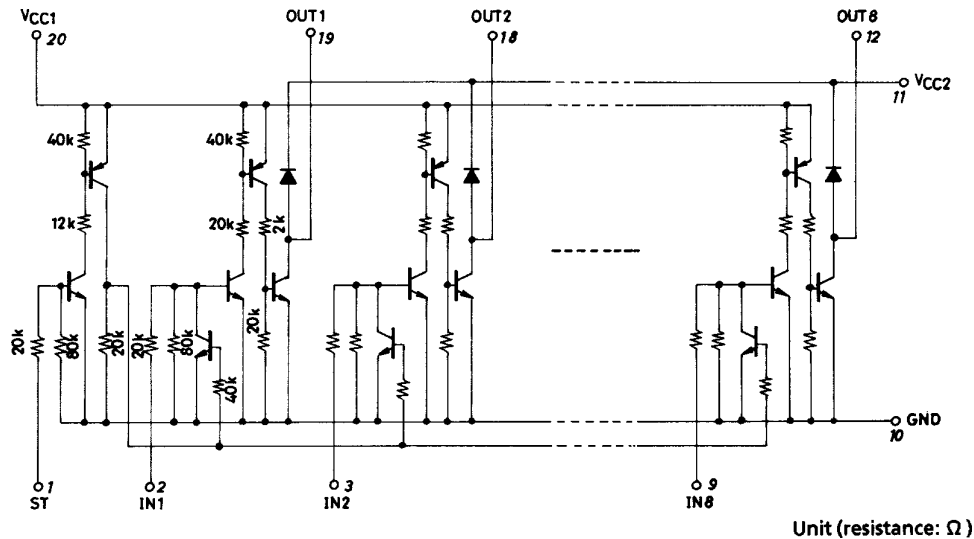
**Allowable Operating Ranges** at  $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	$V_{CC1}$		3.0 to 7.0	V
Input H-level voltage	$V_{IH}$		2.0 to 7.0	V
Input L-level voltage	$V_{IL}$		-0.3 to +0.3	V

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output voltage	$V_{OUT1}$	$V_{CC1}=V_{CC2}=6.0\text{V}$ , $V_{IN}=4.0\text{V}$ , $I_{OUT}=80\text{mA}$			0.3	V
	$V_{OUT2}$	$V_{CC1}=V_{CC2}=4.0\text{V}$ , $V_{IN}=2.0\text{V}$ , $I_{OUT}=40\text{mA}$			0.25	V
Input current	$I_{IN}$	$V_{CC1}=V_{CC2}=V_{IN}=7.0\text{V}$			0.5	mA
Strobe input current	$I_{I(ST)}$	$V_{CC1}=V_{CC2}=0\text{V}$ , $V_{I(ST)}=7.0\text{V}$			0.5	mA
Output leakage current	$I_{o(leak)1}$	$V_{CC1}=V_{CC2}=V_{OUT}=7.0\text{V}$ , $V_{IN}=0\text{V}$			30	$\mu\text{A}$
	$I_{o(leak)2}$	$V_{CC1}=V_{CC2}=V_{OUT}=V_{IN}=7.0\text{V}$ , $V_{I(ST)}=4.0\text{V}$			30	$\mu\text{A}$
Spark killer diode forward voltage	$V_{F(S)}$	$I_{F(S)}=100\text{mA}$			3.0	V
Spark killer diode reverse current	$I_{R(S)}$	$V_{CC2}=7.0\text{V}$ , $V_{OUT}=0\text{V}$			30	$\mu\text{A}$
Turn-ON time (LB1265 only)	$t_{on}$	$V_{CC1}=5.0\text{V}$ , $V_{IN}=5.0\text{V}$ , $V_{OUT}=25\text{V}$ , $R_L=250\Omega$ , f pulse=1kHz, duty=50%		0.3		$\mu\text{s}$
Turn-OFF time (LB1265 only)	$t_{off}$			5.0		$\mu\text{s}$

## Equivalent Circuit



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