

SANYO

NO.1369C

LB1245**Active-Low Input Fluorescent
Display Tube Driver**

The LB1245 has been designed for interfacing low-level digital devices to fluorescent display tubes. Its 8-channel independent Darlington output stage is used for digit and segment drivers. Equivalent pull-down resistors are built in; externally connected resistors to prevent ghosts are no longer required. Output is activated when input voltages are at a low level, making the IC an ideal interface for N-channel MOS devices. (V_{DD} , V_{SS} of LSI can be made common to V_{DD} , V_{SS} of the LB1245.)

Features

- . 8-channel independent Darlington driver.
- . Capable of driving digits or segments.
- . Built-in pull-down sink current.
- . Rated at 55V/30mA.

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

			unit
Maximum Power Supply Voltage	V_{CCmax}		-0.3 to +55.0 V
	V_{DDmax}	$V_{DD} \leq V_{CC} - 2.0V$	-0.3 to +10.0 V
Output Supply Voltage	V_{OUTmax}		-0.3 to V_{CC} V
Input Supply Voltage	V_{INmax}	$V_{IN} \geq 0$	$V_{DD} - 10$ to V_{DD} V
Maximum Output Current	I_{OUTmax}		30 mA
Allowable Power Dissipation	P_{dmax}		1.13 W
Operating Temperature	T_{opr}		-20 to +75 $^\circ\text{C}$
Storage Temperature	T_{stg}		-40 to +150 $^\circ\text{C}$

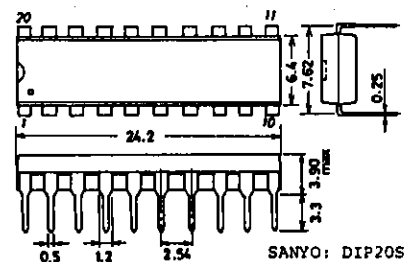
Allowable Operating Conditions at $T_a=25^\circ\text{C}$

			unit
Supply Voltage	V_{CC}		5.5 to 55 V
	V_{DD}	$V_{DD} \leq V_{CC} - 2.0V$	3.5 to 10 V
Input "ON" Level Voltage	V_{ION}	$V_{IN} \geq 0, I_{OUT} = -30\text{mA}$	$V_{DD} - 10$ to $V_{DD} - 3.2$ V
Input "OFF" Level Voltage	V_{IOFF}	$I_{OUT} \geq -30\mu\text{A}$	$V_{DD} - 0.4$ to V_{DD} V

Electrical Characteristics at $T_a=25^\circ\text{C}, V_{CC}=55V, V_{DD}=5.0V$

			min	typ	max	unit
Power Supply Current	I_{CCL}	All inputs: open			2.0	mA
	I_{CCH}	All inputs: $V_{IN} = V_{DD} - 5V$			14	mA
	I_{DDH}	All inputs:			6.5	mA
Output Voltage	V_{OL}	$V_{IN} = V_{DD} - 0.4V, I_{OUT} = 0$			200	mV
	V_{OH}	$V_{IN} = V_{DD} - 5V, I_{OUT} = -30\text{mA}$	$V_{CC} - 2$			V
Pull-down Current	I_{OPL}	$V_{OUT} = V_{CC}$	0.2	0.4	1.0	mA
Input Current	I_{IN1}	$V_{IN} = V_{DD} - 5V$	-0.8			mA
	I_{IN2}	$V_{DD} = 10V, V_{IN} = V_{DD} - 10V$	-1.9			mA
Output Leakage Current	I_{OL}	$V_{IN} = V_{DD} - 0.4V, V_{OUT} = 0.5V$	-30			μA

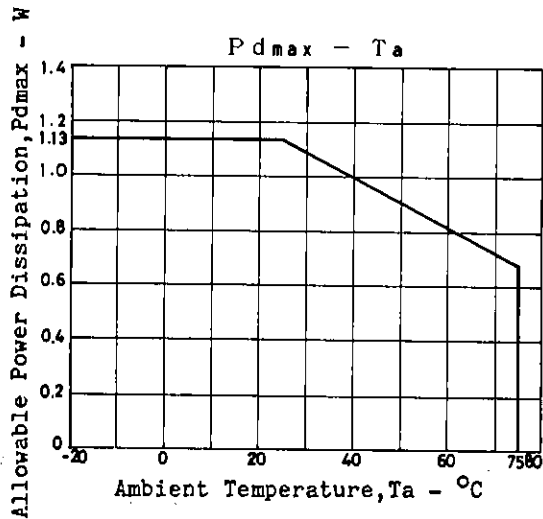
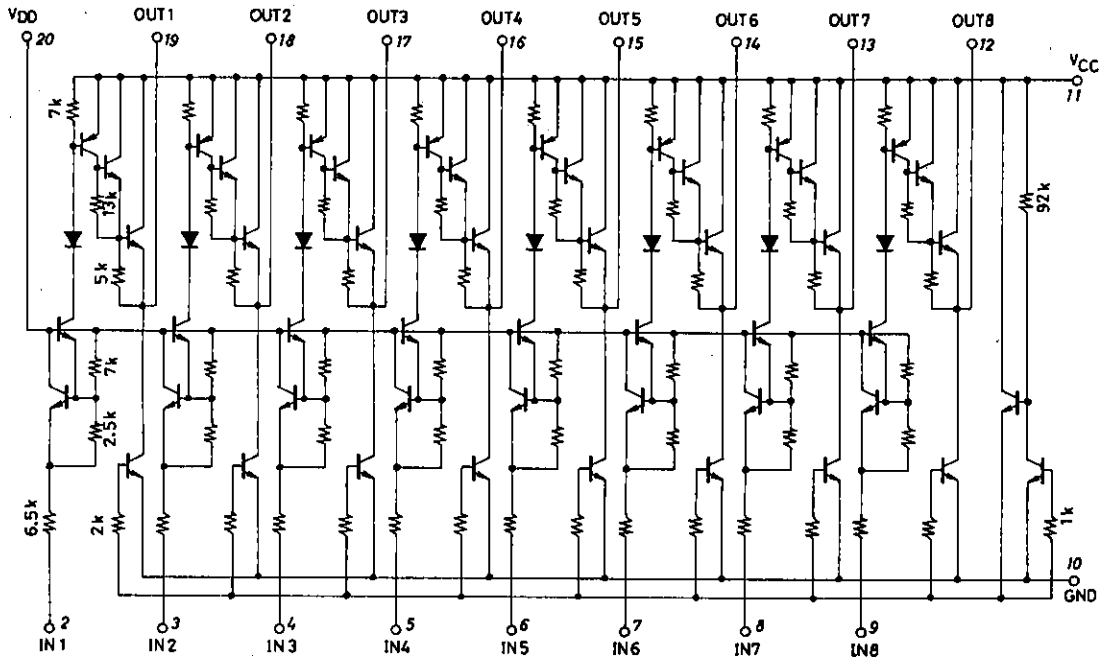
Package Dimensions 3021B-D20SIC
(unit: mm)



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Equivalent Circuit

Unit (resistance: Ω)



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