

**LB1293****6-Channel Driver Array****Overview**

The LB1293 has been designed for interfacing between low level digital devices and fluorescent display tubes. Its 6-channel independent Darlington output stage is used for digit or segment drivers. Also, with pull-down equivalent resistors, no externally connected resistors are required for ghost prevention. When the input voltage is at a high level, the output gets activated.

**Features**

- 6-channel independent Darlington driver.
- Capable of driving digits or segments.
- On-chip sink current circuit for pull-down.
- 55V/30mA rating.

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

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC\text{ max}}$		-0.3 to +55.0	V
Output supply voltage	$V_{OUT}$		-0.3 to $V_{CC}$	V
Input supply voltage	$V_{IN}$		-0.3 to +20.0	V
Maximum output current	$I_{OUT}$		30	mA
Allowable power dissipation	$P_d\text{ max}$		960	W
Operating temperature	$T_{opr}$		-20 to +75	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +150	$^\circ\text{C}$

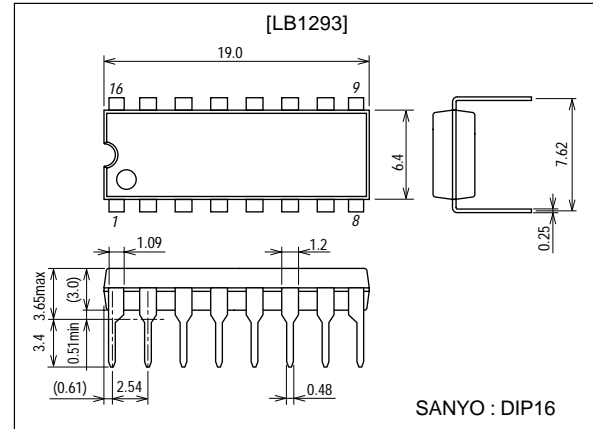
**Allowable Operating Ranges** at  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	$V_{CC}$		4.75 to 55.0	V
Input high-level voltage	$V_{IH}$	$I_{OUT} = -30\text{mA}$	4.0 to 20.0	V
Input low-level voltage	$V_{IL}$	$I_{OUT} \leq -30\mu\text{A}$	-0.3 to +0.3	V

**Package Dimensions**

unit:mm

3006C-DIP16



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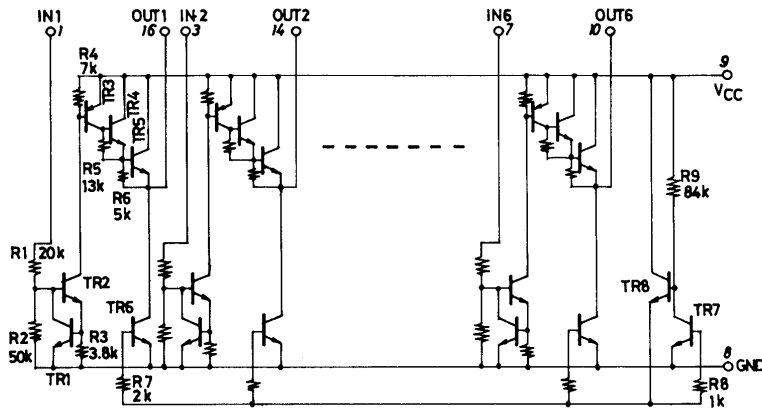
# LB1293

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

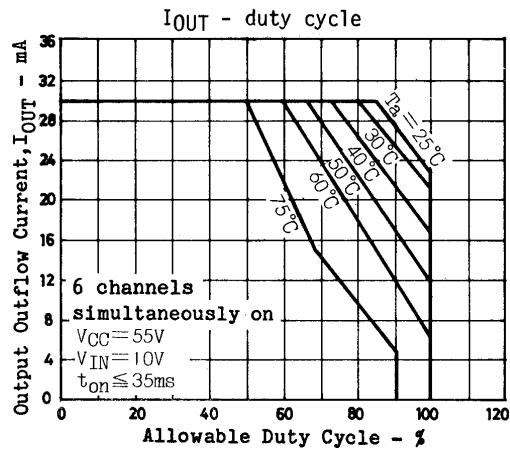
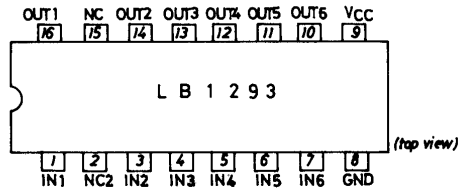
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Current drain	$I_{CCH}$	All inputs, $V_{IN}=10\text{V}$		5.0	8.0	mA
	$I_{CCL}$	All inputs open	0.3	1.0	1.6	mA
Output voltage	$V_{OH}$	$V_{IN}=10\text{V}$ , $I_{OUT}=-30\text{mA}$	$V_{CC}-2.0$	$V_{CC}-1.6$		V
	$V_{OL}$	$V_{IN}=0.3\text{V}$ , $I_{OUT}=0\text{mA}$			200	mA
Output leakage current	$I_{OL}$	$V_{IN}=0.3\text{V}$ , $V_{OUT}=0.5\text{V}$	-30			$\mu\text{A}$
Pull-down current	$I_{OPL}$	$V_{OUT}=V_{CC}$	0.2	0.4	1.0	mA
Input current	$I_{IN1}$	$V_{IN}=20\text{V}$	0.6	1.0	1.4	mA
	$I_{IN2}$	$V_{IN}=10\text{V}$	0.3	0.5	0.7	mA
	$I_{INL}$	$V_{IN}=0\text{V}$	-30			$\mu\text{A}$

## Equivalent Circuit

Unit (resistance:  $\Omega$ )



## Pin Assignment



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