Ordering number: EN 1044C

Monolithic Digital IC

NO.1044C

LB1291

8-Channel Driver Array

The LB1291 has been designed for interfacing between low level digital devices and fluorescent display tubes. Its 8-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

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

Absolute Maximum Ratings at Ta=25°C

			unit
Maximum Supply Voltage	V_{CC}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	Pdmax	1.13	W
Operating Temperature	Topr	-20 to +75	°C
Storage Temperature	Tstg	-40 to +150	°C

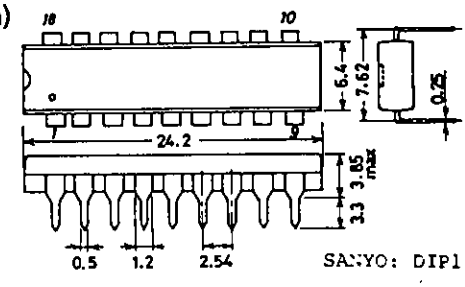
Allowable Operating Conditions at Ta=25°C

				unit
Supply Voltage	V_{CC}		4.75 to 55.0	V
Input "H" Level Voltage	V_{IH}	I_{OUT}≦-30mA	4.0 to 20.0	V
Input "L" Level Voltage	V_{IL}	I_{OUT}≦-30μA	-0.3 to +0.3	V

Electrical Characteristics at Ta=25°C, V_{CC}=55V

			min	typ	max	unit
Current Dissipation	I_{CCH}	All inputs, V_{IN}=10V		6.0	10.0	mA
	I_{CCL}	All inputs open	0.3	1.0	1.6	mA
Output Voltage	V_{OH}	V_{IN}=10V, I_{OUT}=-30mA	V_{CC}-2.0	V_{CC}-1.6		V
	V_{OL}	V_{IN}=0.3V, I_{OUT}=0mA			200	mA
Output Leakage Current	I_{OL}	V_{IN}=0.3V, V_{OUT}=0.5V	-30			μA
Pull-down Current	I_{OPL}	V_{OUT}=V_{CC}	0.2	0.4	1.0	mA
Input Current	$I_{IN(1)}$	V_{IN}=20V	0.6	1.0	1.4	mA
	$I_{IN(2)}$	V_{IN}=10V	0.3	0.5	0.7	mA
	I_{INL}	V_{IN}=0V	-30			μA

Package Dimensions 3007A-D18IC
(unit : mm)



Equivalent Circuit and Pin Assignment

Unit (resistance: Ω)