

**SANYO**

No.843E

**LB1240****Fluorescent Display Tube Driver**

The LB1240 has been designed for interfacing low-level digital devices to fluorescent display tubes. Its 8-circuit 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.

**FEATURES**

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

**ABSOLUTE MAXIMUM RATINGS/ $T_a = 25^\circ\text{C}$** 

			unit
Maximum power supply voltage	$V_{CC}$ max	-0.3 ~ +55.0	V
Output supply voltage	$V_{OUT}$	-0.3 ~ $V_{CC}$	V
Input supply voltage	$V_{IN}$ $V_{IN} > \text{GND}$	$V_{CC} - 10 \sim V_{CC}$	V
Maximum output current	$I_{OUT}$	-30	mA
Allowable power dissipation	$P_d$ max	1.13	W
Operating ambient temperature	$T_{opr}$	-20 ~ +75	$^\circ\text{C}$
Storage ambient temperature	$T_{stg}$	-40 ~ +150	$^\circ\text{C}$

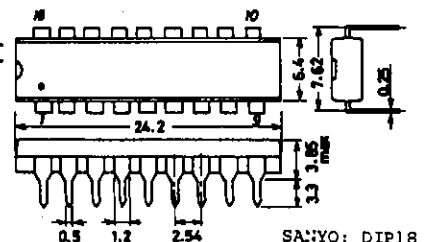
**ALLOWABLE OPERATING CONDITIONS/ $T_a = 25^\circ\text{C}$** 

			unit
Power supply voltage	$V_{CC}$	4.75 ~ 55.0	V
Input (H) level voltage	$V_{IH}$ $V_{IN} > \text{GND}$ , $I_{OUT} = -30 \text{ mA}$	$V_{CC} - 10 \sim V_{CC} - 2.8$	V
Input (L) level voltage	$V_{IL}$ $I_{OUT} \leq -30 \mu\text{A}$	$V_{CC} - 0.45 \sim V_{CC}$	V

**ELECTRICAL CHARACTERISTICS/ $T_a = 25^\circ\text{C}$ ,  $V_{CC} = 55 \text{ V}$** 

			min	typ	max	unit
Power supply current	$I_{CCH}$ All inputs, $V_{IN} = V_{CC} - 10 \text{ V}$			5.0	8.0	mA
	$I_{CCL}$ All inputs open		0.3	1.0	1.6	mA
Output voltage	$V_{OH}$ $V_{IN} = V_{CC} - 10 \text{ V}$ , $I_{OUT} = -30 \text{ mA}$		$V_{CC} - 2.0$	$V_{CC} - 1.6$		V
	$V_{OL}$ $V_{IN} = V_{CC} - 0.3 \text{ V}$ , $I_{OUT} = 0 \text{ mA}$				200	mV
Output leakage current	$I_{OL}$ $V_{IN} = V_{CC} - 0.3 \text{ V}$ , $V_{OUT} = 0.5 \text{ V}$		-30			$\mu\text{A}$
Pull-down current	$I_{OPL}$ $V_{OUT} = V_{CC}$		0.2	0.4	1.0	mA
Input current	$I_{INH}$ $V_{IN} = V_{CC} - 10 \text{ V}$		0.6	0.9	1.3	mA

Package Dimensions 3007A-D18IC  
(unit : mm)



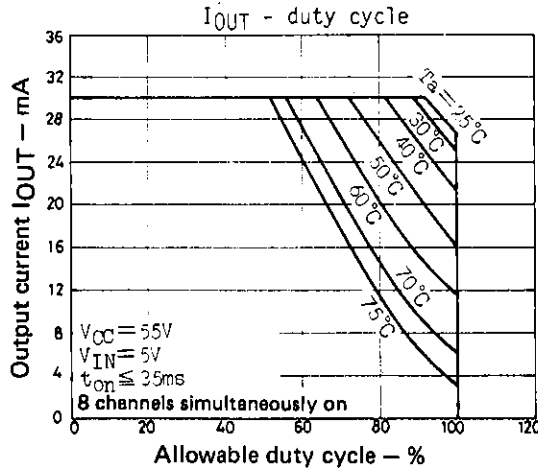
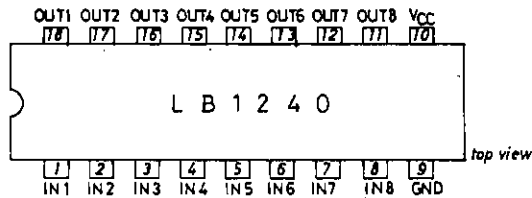
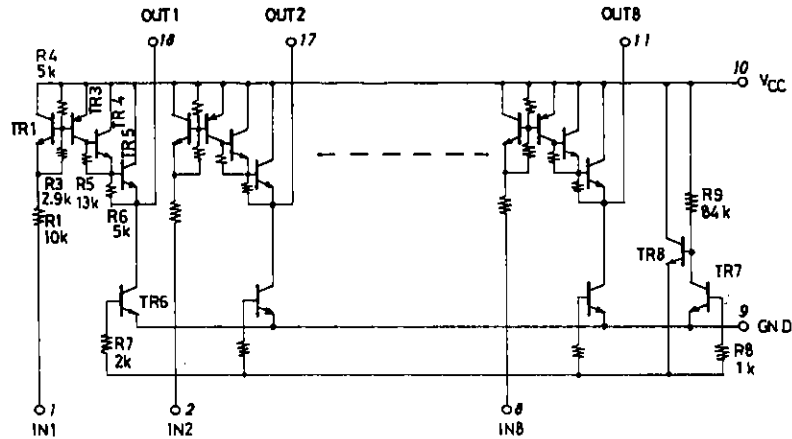
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# LB1240

## Equivalent circuit and pin assignment

Unit (resistance:  $\Omega$ )



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