

NO.1173C

LB1241

Fluorescent Display Tube Driver

The LB1241 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 and 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 45 V/30 mA
- · Large pull-down current and capable of preventing ghost effectively.

ABSOLUTE MAXIMUM RA	TINGS/Ta	= 25°C					unit	
Maximum power supply voltage		VCC max		−0.3 ~ 45			V	
Output supply voltage		Vout				~ Vcc	v	
Input supply voltage		VIN	GND < VIN		V _{CC} − 10 ~ V _{CC}			
Maximum output current		IOUT	S.V.S. VIIN	- 0		-30	mΑ	
Allowable power dissipation		P _d max				1130	mW	
Operating temperature		Topr			-20	~ +75	°c	
Storage temperature		T_{stg}			−40 ~ +150			
ALLOWABLE OPERATIN	G CONDI	TIONS/Ta	= 25°C				unit	
Supply voltage		VCC		4.75 ~ 45			V	
Input "H" level voltage		VIH	GND < VIN, IOUT = -30 mA	V_{CC} -10 ~ V_{CC} -2.8		V		
Input "L" level voltage		VIL	I _{OUT} ≦ –30 μA	V_{CC} -0.45 $\sim V_{CC}$		V		
ELECTRICAL CHARACTERISTICS/T _a = 25°C, V _{CC} = 45 V min typ max							unit	
Supply current	ICCL	All inpu	All inputs: open			2.3	mΑ	
	ICCH					16	mΑ	
Output voltage	Vol	$V_{IN} = V_{CC} - 0.3 \text{ V, } I_{OUT} = 0 \text{ mA}$ 200			200	mV		
	۷он	V _{IN} = 1	VIN = VCC - 5 V, IOUT = -30 mA VCC			- 2.0 V _{CC} - 1.6		
Pull-down current	IOPL	Vour:	0.6	1.0	1.8	mΑ		
Input current	¹ IN1	ΛIV = /	VCC - 5 V	0.2	0.4	0.6	mΑ	

VIN = VCC - 10 V

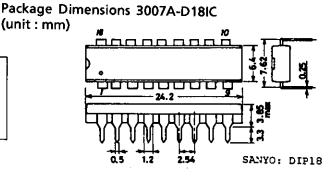
VIN = VCC - 0.3 V, VOUT = 0.5 V

PIN ASSIGNMENT

Output leakage current

IIN₂

IOL



0.6

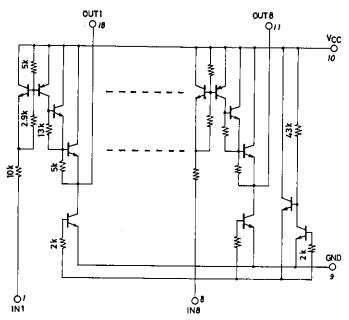
0.9

1.3

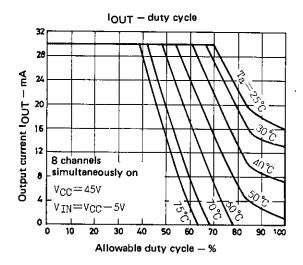
mΑ

μΑ

EQUIVALENT CIRCUIT



Unit (resistance: Ω)



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