Ordering number:ENN667B

Monolithic Digital IC

LB1273R

6-Unit, Darlington Transistor Array

Overview

The circuit construction of this IC is a Darlington transistor array with six units, most suitable for printer hammer drive, lamp, and relay drive. With built-in protective diodes against negative inputs, it is advantageous in designing drive circuits for printer calculators and cash registers.

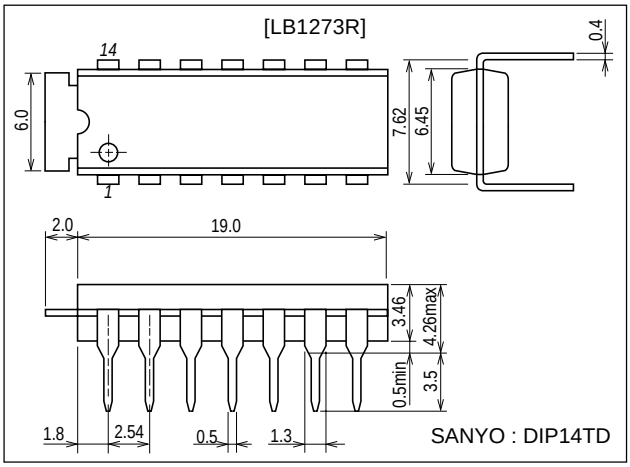
Features

- Since six units are included, it is suitable for 18-digit printers.
- The load current is considerably large i. e., 230mA and is, thus, suitable for thermal printers.

Package Dimensions

unit:mm

3004A-DIP14TD



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Output supply voltage	V_{OUT}		–0.3 to +20	V
Input supply voltage	V_{IN}		–40 to +20	V
Output inflow current	I_{OUT}	per unit	150	mA
Instantaneous output inflow current	iop	per unit duty=60%, pulse width<2ms	230	mA
GND pin inflow current	I_7		–700	mA
GND pin instantaneous outflow current	I_{7p}	duty=60%, pulse width<2ms	1.4	A
Allowable power dissipation	Pd max		1.15	W
Instantaneous allowable power dissipation		Pulse width must be less than 2ms. The percentage of all of 6 units being ON must be less than 50% for 100ms.	2.3	W
Junction temperature	Tj		125	˚C
Operating temperature	Topr		–20 to +70	˚C
Storage temperature	Tstg		–40 to +125	˚C

Allowable Operating Ranges at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Output supply voltage	V_{OUT}		20	V
Input high-level voltage	V_{IH}	output terminal current=150mA	15 to 20	V
Input low-level voltage	V_{IL}	output terminal current=100μA	–35 to +1	V
Load resistance	R_L	No inductance components should be included.	80	Ω(min)

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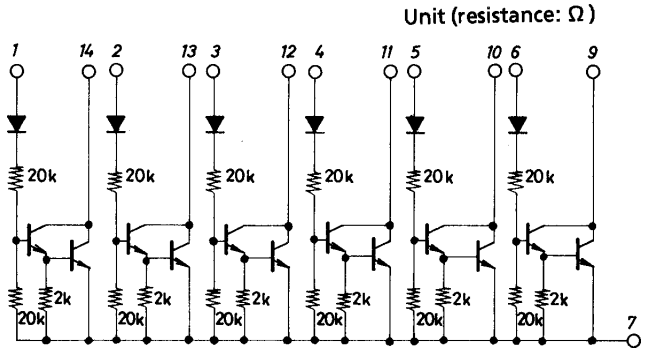
Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output voltage	V_{OUT1}	V_{IN}=15V, I_{OUT}=230mA			1.7	V
Output voltage	V_{OUT2}	V_{IN}=15V, I_{OUT}=150mA			1.5	V
Output leakage current	Ioff	V_{IN}=1.0V, V_{OUT}=20V			100	µA
Input current	I_{IN}	V_{IN}=18V			1.8	mA
Output current	I_{OUT}	I_{IN}=0.5mA, V_{OUT}=1.5V	150			mA
Input leakage current	Ileak	V_{IN}=–35V	–10			µA

Equivalent Circuit



(Note) pin 8 : No connection
Left open at operating mode.