



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.

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	i_{op}	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	$P_{d\ max}$		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	T_j		125	°C
Operating temperature	T_{opr}		-20 to +70	°C
Storage temperature	T_{stg}		-40 to +125	°C

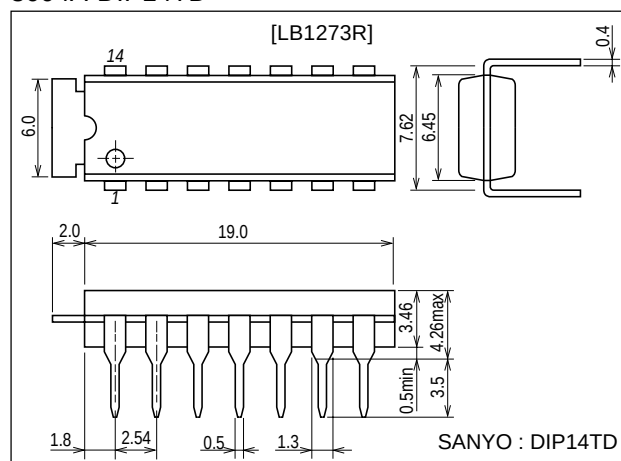
Allowable Operating Ranges at Ta = 25°C

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)

Package Dimensions

unit:mm

3004A-DIP14TD



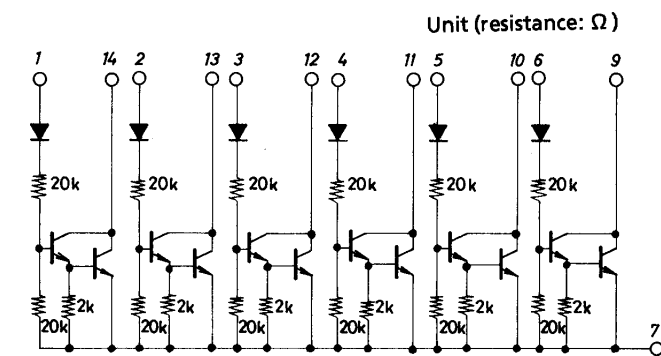
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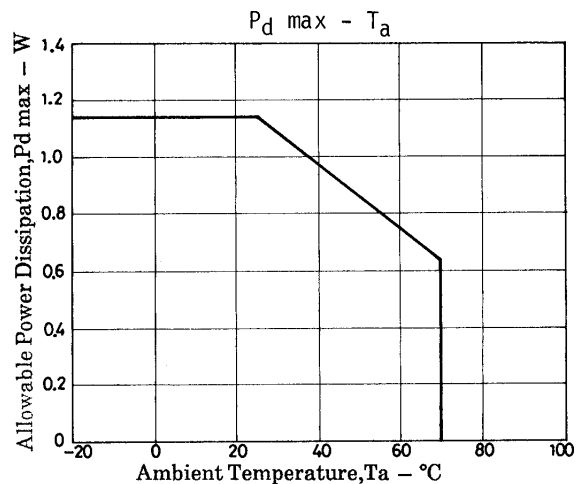
Electrical Characteristics at $T_a = 25^\circ\text{C}$

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

Equivalent Circuit



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



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