

SANYO

No.783B

LB1272

Monolithic Digital IC

6-Unit, Darlington Transistor Array

The circuit configuration of this IC is a 6-unit Darlington transistor array consisting of NPN transistors, and is ideally suited for use in printer hammer driving, lamp or relay driving applications.

With the built-in protective diodes against negative inputs, this IC offers advantages to the driver circuit design of electronic calculator with printer and cash register, etc. which also use display tubes.

Features

- Ideally suited for 18-digit printer because of built-in 6 units.
- With built-in protective diodes against negative inputs.
- Ideally suited for printer mechanism with load current 85 mA.

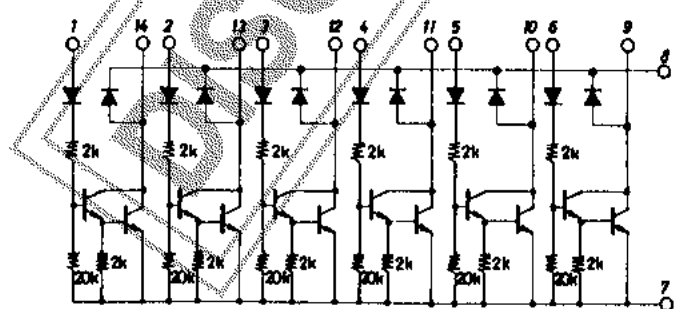
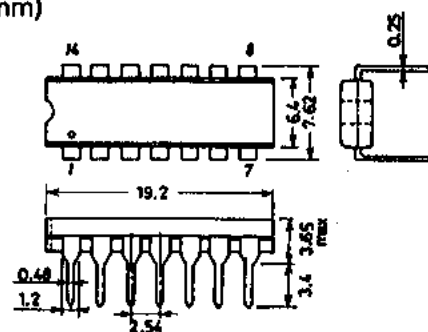
Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Output Supply Voltage	V_{OUT}	-0.3 to +22	V
Input Supply Voltage	V_{IN}	-40 to +12	V
Pin 8 Supply Voltage	V_{CC}	-0.3 to +20	V
Output Flow-in Current	I_{OUT}	Per unit 100	mA
Instantaneous Output Flow-in Current	I_{OP}	Per unit, duty=10% Pulse width < 20ms	150 mA
Spark Killer Diode Forward Current	$I_{F(S)}$	150	mA
GND Pin Flow-out Current	I_{GP}	-900 to 0	mA
Pin 8 Instantaneous Flow-out Current	I_{CCP}	-900 to 0	mA
Pin 8 Flow-out Current	I_{CC}	-600 to 0	mA
Allowable Power Dissipation	$P_d \text{ max}$	770	mW
Operating Temperature	T_{opr}	-20 to +80	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +125	$^\circ\text{C}$

Allowable Operating Conditions at $T_a = 25^\circ\text{C}$

Output Supply Voltage	V_{OUT}	22	V max
Input High Level Voltage	V_{IH}	Output pin current=100mA	3 to 12 V
Input Low Level Voltage	V_{IL}	Output pin current=100 μA	-35 to +1 V
Load Inductance	L_L	Using protective diode	100 mH max

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Equivalent CircuitUnit (resistance : Ω)**Package Dimensions 3003A (unit : mm)**

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7097KI/8215KI/7213KI,TS // 7241KI,TS No.783-1/2

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

			min	typ	max	unit
Output Voltage	$V_{OUT(1)}$	$V_{IN}=3\text{V}, I_{OUT}=150\text{mA}$			1.7	V
	$V_{OUT(2)}$	$V_{IN}=3\text{V}, I_{OUT}=100\text{mA}$			1.4	V
Output Sustain Voltage	$V_{OUT(s)}$	$V_{IN}=\text{open}, I_{OUT}=150\text{mA}$	22			V
		Applied time $< 10\mu\text{s}$				
Output Leakage Current	I_{off}	$V_{IN}=1\text{V}, V_{out}=22\text{V}$			100	μA
Input Current	I_{IN}	$V_{IN}=3\text{V}$			1	mA
Output Current	I_{OUT}	$I_{IN}=0.3\text{mA}, V_{OUT}=1.4\text{V}$	100			mA
Input Leakage Current	I_{leak}	$V_{IN}=-35\text{V}$	-10			μA
Spark Killer Diode Leakage Current	$I_{leak(s)}$	$V_{OUT}=0\text{V}, \text{Pin8}=20\text{V}$			30	μA
Spark Killer Diode Forward Voltage	$V_F(S)$	$I_F(3)=150\text{mA}$			1.7	V

