

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 resister, 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 $T_a=25^\circ\text{C}$

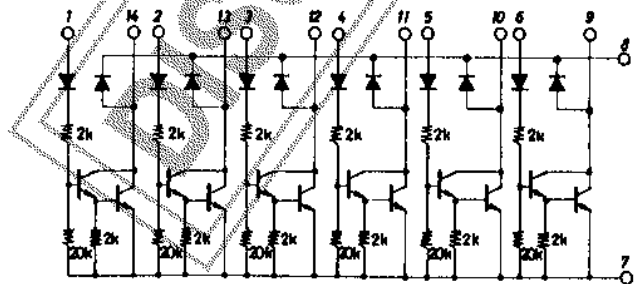
Parameter	Symbol	Value	unit
Output Supply Voltage	V _{OUT}	-0.3 to +22	V
Input Supply Voltage	V _{IN}	-40 to +12	V
Pin 8 Supply Voltage	V _{CC}	-0.3 to +20	V
Output Flow-in Current	I _{OUT}	Per unit 100	mA
Instantaneous Output Flow-in Current	I _{OP}	Per unit, duty=10% Pulse width < 20ms 150	mA
Spark 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 max}	770	mW
Operating Temperature	T _{opr}	-20 to +80	°C
Storage Temperature	T _{stg}	-40 to +125	°C

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

Parameter	Symbol	Value	unit
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=100μA -35 to +1	V
Load Inductance	L _L	Using protective diode 100	mH max

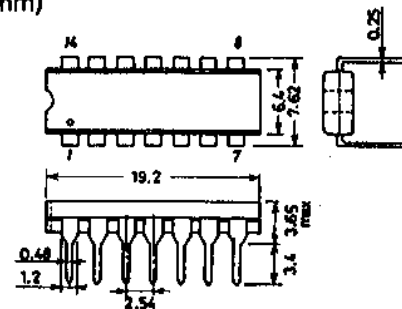
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Equivalent Circuit



Unit (resistance : Ω)

Package Dimensions 3003A (unit : mm)



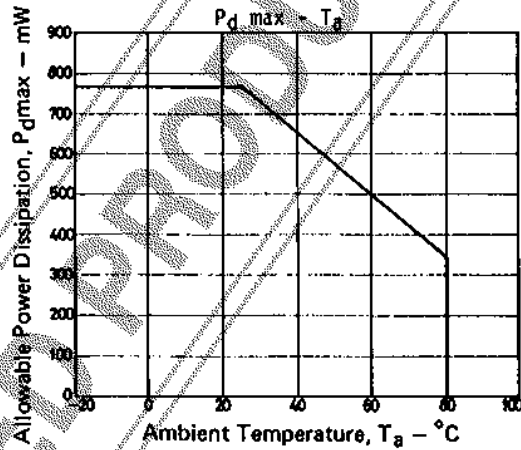
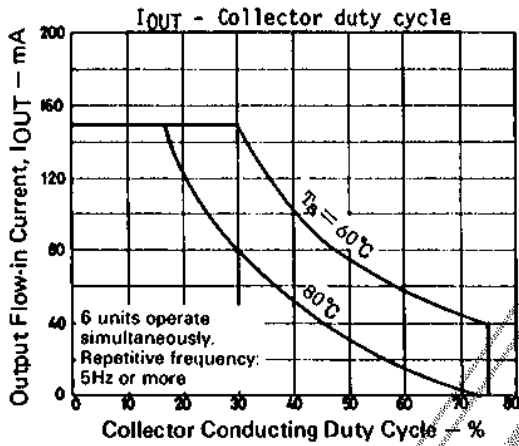
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Operating Characteristics at $T_a=25^\circ\text{C}$

			min	typ	max	unit
Output Voltage	VOUT(1)	V _{IN} =3V, I _{OUT} =150mA			1.7	V
	VOUT(2)	V _{IN} =3V, I _{OUT} =100mA			1.4	V
Output Sustain Voltage	VOUT(s)	V _{IN} =open, I _{OUT} =150mA Applied time < 10μs	22			V
Output Leakage Current	I _{off}	V _{IN} =1V, V _{out} =22V			100	μA
Input Current	I _{IN}	V _{IN} =3V		1		mA
Output Current	I _{OUT}	I _{IN} =0.3mA, V _{OUT} =1.4V	100			mA
Input Leakage Current	I _{leak}	V _{IN} =-35V	-10			μA
Spark Killer Diode Leakage Current	I _{leak(s)}	V _{OUT} =0V, Pin8=20V			30	μA
Spark Killer Diode Forward Voltage	V _{F(S)}	I _{F(3)} =150mA			1.7	V



DISCONTINUED PRODUCT