

SANYO

NO.535C

LB1274

6-Unit, Darlington Transistor Array

Circuit structure of this IC is a 6-unit Darlington transistor array with NPN transistors. The IC is ideal for driving printers, relays, and lamps. Protective diodes guard against negative inputs. Thus it has advantages when designing circuits to drive printer-calculators that use display tubes, cash registers, and the like.

FEATURES

- Ideal for 18-digit printers (because it has 6 units.)
- Protective diodes are incorporated against negative inputs ($V_{IN} = -40 \sim +20$ V).
- Ideal for printers, with 85-mA load current ($I_{OUT\ max} = 100$ mA DC).
- Spark-killer diodes accommodate L-loads.

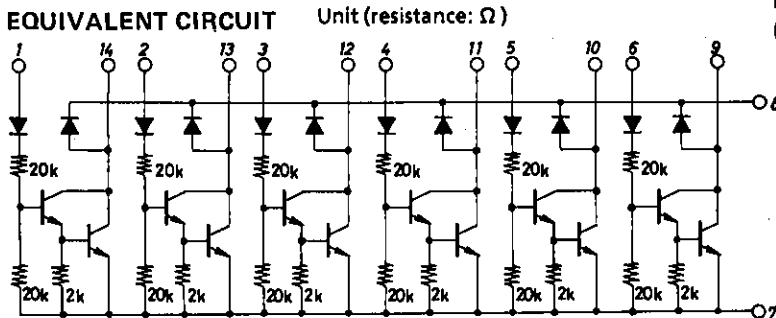
ABSOLUTE MAXIMUM RATINGS/ $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Output supply voltage	V_{OUT}	-0.3 ~ +22	V
Input supply voltage	V_{IN}	-40 ~ +20	V
Pin-8 supply voltage	V_8	-0.3 ~ +20	V
Output inflow current	I_{OUT}	Per unit 0 ~ 100	mA
Instantaneous output inflow current	I_{OP}	Per unit: duty $\leq 10\%$ Pulse width < 20 ms	0 ~ 150 mA
Spark killer diode forward current	$I_{F(s)}$	Per diode: duty $\leq 10\%$ Pulse width < 20 ms	0 ~ 150 mA
GND-pin outflow current	I_7	-700 ~ 0	mA
Pin-8 instantaneous outflow current	I_{8p}	duty $\leq 10\%$, Pulse width < 20 ms	-500 ~ 0 mA
Allowable power dissipation	$P_d\ max$	1.15	W
Junction temperature	T_j	125	$^\circ\text{C}$
Operating ambient temperature	T_{opr}	-20 ~ +80	$^\circ\text{C}$
Storage ambient temperature	T_{stg}	-40 ~ +125	$^\circ\text{C}$

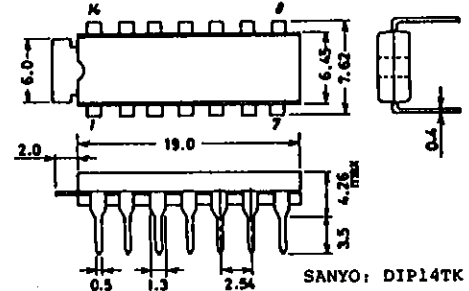
ALLOWABLE OPERATING CONDITIONS/ $T_a = 25^\circ\text{C}$, pin 7 = 0 V

Parameter	Symbol	Value	Unit
Output supply voltage	V_{OUT}	22	V or less
Input high-level voltage	V_{IH}	Output terminal current = 100 mA	9 ~ 20 V
Input low-level voltage	V_{IL}	Output terminal current = 100 μA	-35 ~ +1 V
Load inductance	L_L	Protective diodes employed 100	mH or less

EQUIVALENT CIRCUIT

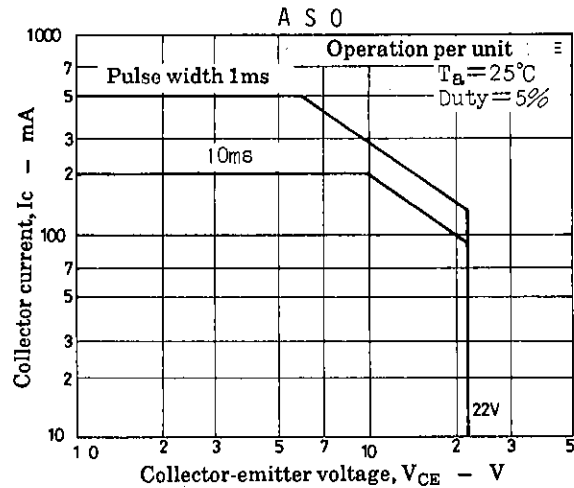
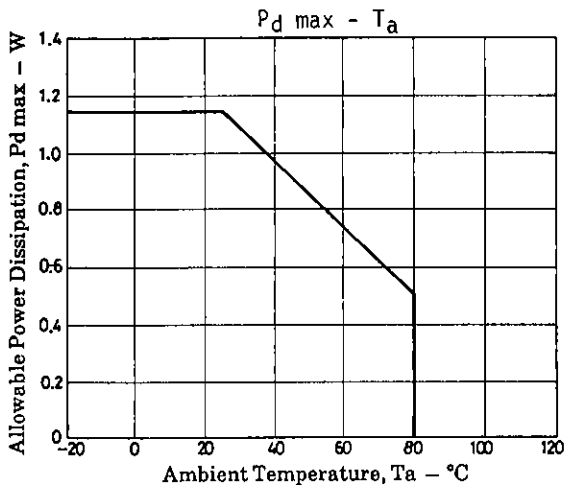


Package Dimensions 3004A-D14TKIC (unit : mm)



LB1274

ELECTRICAL CHARACTERISTICS/ $T_a = 25^\circ\text{C}$, pin 7 = 0 V			min	typ	max	unit
Output voltage	$V_{OUT}(1)$	$V_{IN} = 9.0\text{ V}, I_{OUT} = 150\text{ mA}$			1.7	V
	$V_{OUT}(2)$	$V_{IN} = 9.0\text{ V}, I_{OUT} = 100\text{ mA}$			1.4	V
Output sustaining voltage	$V_{OUT}(s)$	$V_{IN} = \text{open}, I_{OUT} = 150\text{ mA}$ Applied time $< 10\ \mu\text{s}$	22			V
Output leakage current	I_{off}	$V_{IN} = 1.0\text{ V}, V_{OUT} = 22\text{ V}$			100	μA
Input current	$I_{IN}(1)$	$V_{IN} = 18\text{ V}$			1.8	mA
	$I_{IN}(2)$	$V_{IN} = 9.0\text{ V}$			0.8	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	$I_{leak}(s)$	$V_{OUT} = 0\text{ V}, \text{pin } 8 = 20\text{ V}$			30	μA
Spark killer diode forward voltage	$V_F(s)$	$I_F(s) = 150\text{ mA}$			1.7	V



■ No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.

■ Anyone purchasing any products described or contained herein for an above-mentioned use shall:

- ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
- ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.

■ Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.