

SANYO	NO.790C	Monolithic Digital IC
		LB1275
7-Unit, Darlington Transistor Array		

This LB1275, 7-unit Darlington transistor array using NPN transistors, is specially designed for printer driver, lamp or relay driver. Protector diodes against negative input are used by which it is easy to design drive circuits of a calculator with a printer using indicator or a cash register.

Features

- 7-unit version (DIP-16) of LB1274 (6-unit DIP-14)
- Protector diodes against negative input ($V_{IN} = -40$ to $+20$ V).
- Spark killer diodes for inductive load.
- Suitable for 85mA type printer mechanism ($I_{OUTmax} = 100$ mA DC).

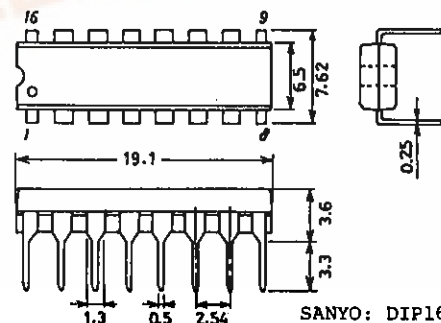
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$, voltage at pin 8 = 0V.

			unit
Output Supply Voltage	V_{OUT}	-0.3 to +22	V
Input Supply Voltage	V_{IN}	-40 to +20	V
Pin 8 Supply Voltage	V_{8P}	-0.3 to +20	V
Output Flow-in Current	I_{OUT}	per unit 0 to 100	mA
Instantaneous Output Flow-in Current	I_{OP}	per unit, duty=10%, pulse width < 20ms 0 to 150	mA
Forward Current of Spark Killer Diode	$I_{F(S)}$	per diode, duty=10%, pulse width < 20ms 150 to 0	mA
Flow-out Current at GND Pin	I_8	-900 to 0	mA
Instantaneous Flow-out Current at Pin 8	I_{8p}	duty=10%, pulse width < 20ms -500 to 0	mA
Instantaneous Flow-out Current at Pin 9	I_{9p}	duty=10%, pulse width < 20ms -900 to 0	mA
Allowable Power Dissipation	P_{dmax}	900	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 $T_a = 25^\circ\text{C}$, voltage at pin 8 = 0V

			unit
Output Supply Voltage	V_{OUT}	22 V min.	
Input 'H' Level Voltage	V_{IH}	output pin current=100mA +9 to +20	V
Input 'L' Level Voltage	V_{IL}	output pin current=100uA -35 to +1	V
Load Inductance	L_L	with protector diode 100mH min.	

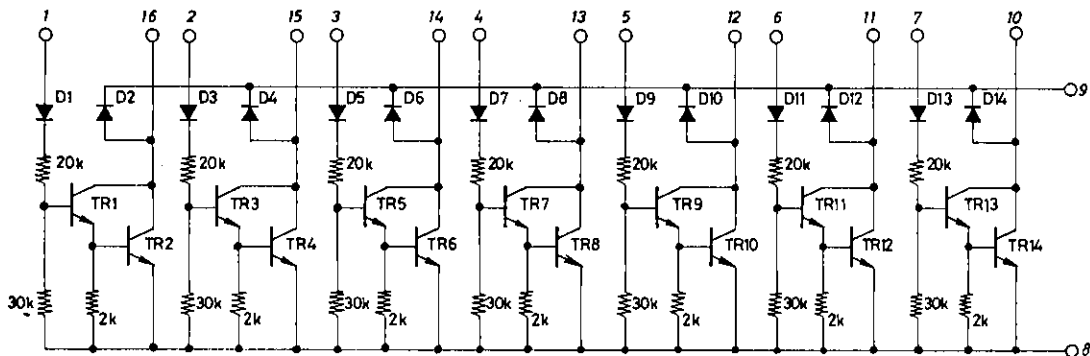
Package Dimensions 3064-D16TR
(unit: mm)



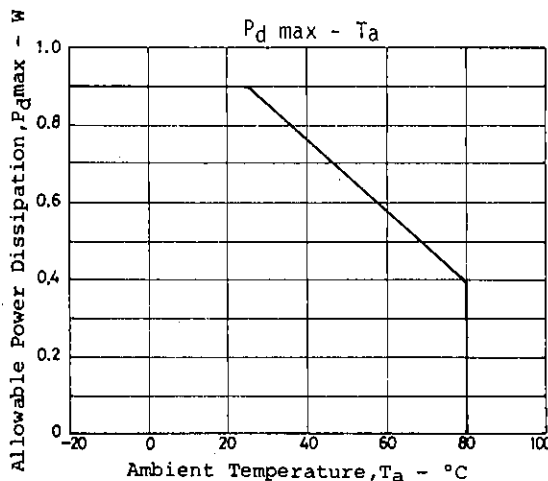
LB1275

Electrical Characteristics at $T_a=25^{\circ}\text{C}$, voltage at pin 8=0V				min	typ	max	unit
Output Voltage	$V_{\text{OUT}}(1)$	$V_{\text{IN}}=9.0\text{V}, I_{\text{OUT}}=150\text{mA}$				1.7	V
	$V_{\text{OUT}}(2)$	$V_{\text{IN}}=9.0\text{V}, I_{\text{OUT}}=100\text{mA}$				1.4	V
Output Sustain Voltage	$V_{\text{OUT}}(s)$	$V_{\text{IN}}=\text{open, applied time}$	22				V
		$< 10\mu\text{s}, I_{\text{OUT}}=150\text{mA}$					
Output Leak Current	I_{off}	$V_{\text{IN}}=1.0\text{V}, V_{\text{OUT}}=22\text{V}$				100	μA
Input Current	$I_{\text{IN}}(1)$	$V_{\text{IN}}=18\text{V}$				1.8	mA
	$I_{\text{IN}}(2)$	$V_{\text{IN}}=9\text{V}$				0.8	mA
Output Current	I_{OUT}	$I_{\text{IN}}=0.3\text{mA}, V_{\text{OUT}}=1.4\text{V}$	100				mA
Input Leak Current	I_{leak}	$V_{\text{IN}}=-35\text{V}$	-10				μA
Leak current at Spark	$I_{\text{leak}}(s)$	$V_{\text{OUT}}=0\text{V}, \text{pin } 8=20\text{V}$				30	μA
Killer Diode							
Forward Voltage at Spark	$V_{\text{F}}(s)$	$I_{\text{F}}(s)=150\text{mA}$				1.7	V
Killer Diode							

Equivalent Circuit



Unit (resistance: Ω)



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