

SANYO	NO.993C	LB1257
	8-Unit, Low-Saturation Driver	

Applications

- . 4-phase stepping motor driver of 2 channels.
- . Especially suited for X-Y plotter driver (Meeting the requirements for Alps DPG plotter).
- . General-purpose 8-unit large current & low saturation voltage driver (Relay, LED, lamp, solenoid, etc.).

Features

- . Large current capacity (400mA) and low saturation voltage (0.5V max.).
- . With spark killer diode provided.

Absolute Maximum Ratings at Ta=25°C

			unit
Maximum Supply Voltage	V _{CCmax}	-0.3 to +7.0	V
Output Supply Voltage	V _{OUT}	-0.3 to +10.0	V
Input Supply Voltage	V _{IN}	-0.3 to +7.0	V
Maximum Output Current	I _{OUT}	Per unit	400 mA
Maximum Forward Current	I _{FSM}	Spark killer diode	400 mA
		Pulse width ≤ 35ms, duty 5%	
GND Pin Flow-out Current	I _{GND}	Pulse width ≤ 35ms	3000 mA
Instantaneous Current Dissipation	I _{ccp}	Pulse width ≤ 35ms, duty 5%	3000 mA
Allowable Power Dissipation	P _{dmax}		1.13 W
Operating Temperature	T _{opr}		-20 to +75 °C
Storage Temperature	T _{stg}		-40 to +125 °C

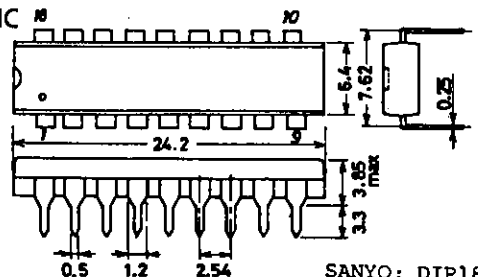
Allowable Operating Conditions at Ta=25°C

			unit
Supply Voltage	V _{CC}	2.3 to 6.0	V
Input "H" Level Voltage	V _{IH}	I _{OUT} =200mA	2.3 to 7.0 V
Input "L" Level Voltage	V _{IL}	I _{OUT} ≤ 100µA	-0.3 to +0.7 V

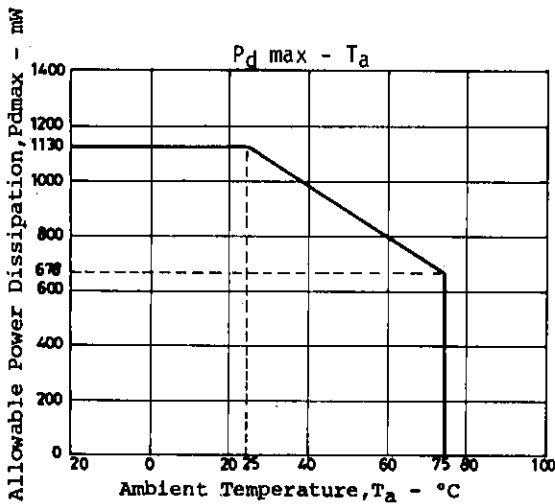
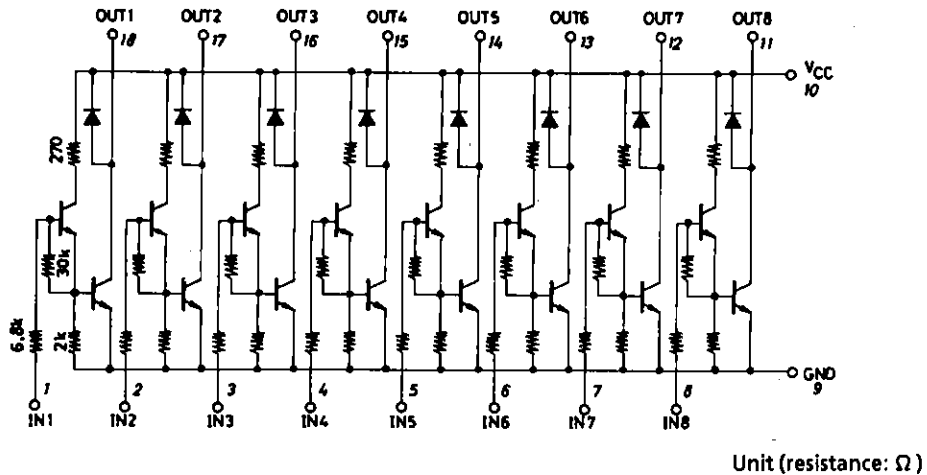
Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Output Voltage	V _{OUT1}	V _{IN} =V _{CC} =2.3V, I _{OUT} =200mA			0.4	V
	V _{OUT2}	V _{IN} =3.0V, V _{CC} =3.5V, I _{OUT} =200mA			0.25	V
	V _{OUT3}	V _{IN} =5.5V, V _{CC} =6.0V, V _{OUT} =400mA			0.5	V
Output Sustain Voltage	V _{O(sus)}	V _{IN} : open, I _{OUT} =400mA, t ≤ 10µs		10		V
Output Leak Current	I _{off}	V _{IN} =0.7V, V _{CC} =6.0V, V _{OUT} =6.0V			100	µA
Input Current	I _{IN}	V _{IN} =6.0V, I _{OUT} =0			1.0	mA
Spark Killer Diode Reverse Current	I _{leak(s)}	V _{OUT} =0, V _{CC} =6.0V			30	µA
Spark Killer Diode Forward Voltage	V _{F(s)}	I _{F(s)} =400mA			3.0	V

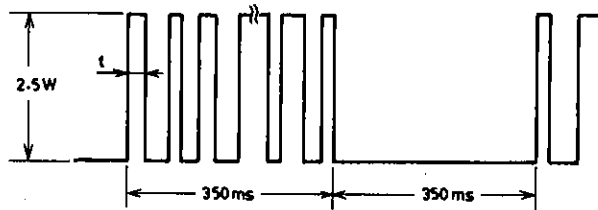
Package Dimensions 3007A-D18IC
(unit: mm)



Equivalent Circuit



The loss of the following waveform is allowed at $T_a=60^\circ\text{C}$.



t(35ms and 40% duty of 350ms ($P_d=0.5W$))

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