Ordering number: EN 993C

SYC SEMICONDUCTORES Y COMPONENTES

LB1257

DRIVE MOTOR PASO A PASO 8CH

Monolithic Digital IC

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 T_a=25°C

				unit
Maximum Supply Voltage	V_{CC}max		-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 Pulse width≦35ms, duty 5%	400	mA
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	$P_d$max		1.13	W
Operating Temperature	Topr		-20 to +75	°C
Storage Temperature	T_{stg}		-40 to +125	°C

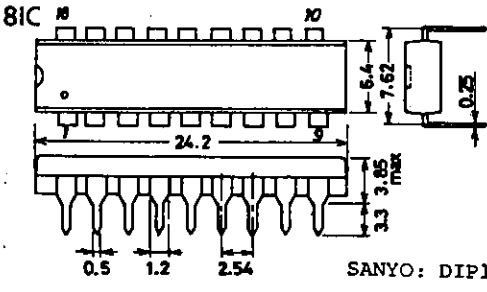
Allowable Operating Conditions at Ta=25°C

				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

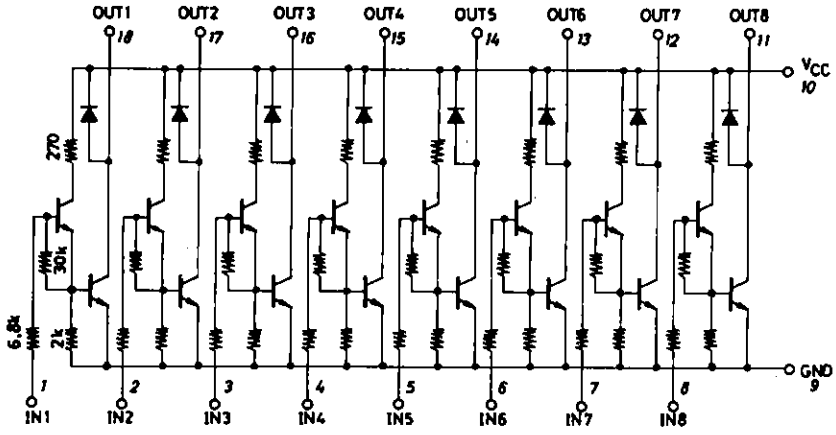
Package Dimensions 3007A-D18IC (unit : mm)



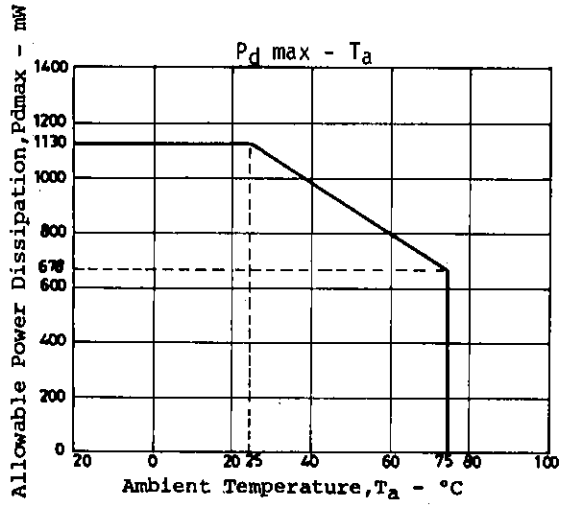
SANYO: DIP18

SANYO Electric Co.,Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10,1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

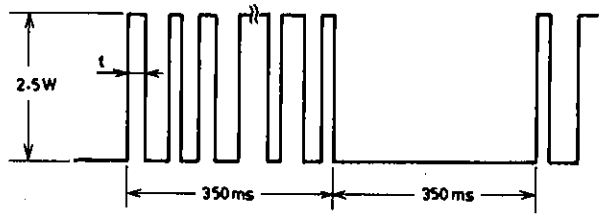
Equivalent Circuit



Unit (resistance: Ω)



The loss of the following waveform is allowed at T_a=60°C.



t≤35ms and 40% duty of 350ms (Pd=0.5W)