Ordering number: EN 1482C

NO.1482C

LB1249

Active-Low Input, 8-Unit, High-Current, Low-Saturation Driver

Applications

- 4-phase stepping motor driver of 2 channels.
- Especially suited for X-Y axis plotter printer driver.
- High current, low saturation voltage general-purpose 8-unit driver (relay, LED, lamp solenoid, etc.)

Features

- Low active input type.
- On-chip input protecting diodes.
- High current capacity (400mA) and low saturation voltage (0.5Vmax).
- On-chip spark killer diodes.
- Wide duty due to Pd of 3W max.

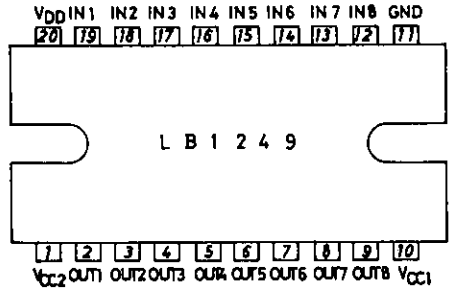
Absolute Maximum Ratings at Ta=25°C

				unit
Maximum Supply Voltage	$V_{CC1,2}$		-0.3 to +7.0	V
Output Supply Voltage	V_{OUT}		-0.3 to +10.0	V
Input Supply Voltage	V_{IN}	$GND \leqq V_{IN}$	V_{DD}-7.0 to V_{DD}+15	V
Output Current	I_{OUT}	Per unit	400	mA
Spark Killer Diode Forward Current	I_{FSM}	Pulse width≦35ms duty 5%	400	mA
GND Pin Current	I_{GND}	Pulse width≦35ms	3.4	A
Instantaneous Current Dissipation	I_{CCP}	Pulse width≦35ms duty 5%	3.2	A
Allowable Power Dissipation	Pdmax		3.0	W
Operating Temperature	Topr		-20 to +75	°C
Storage Temperature	Tstg		-40 to +125	°C

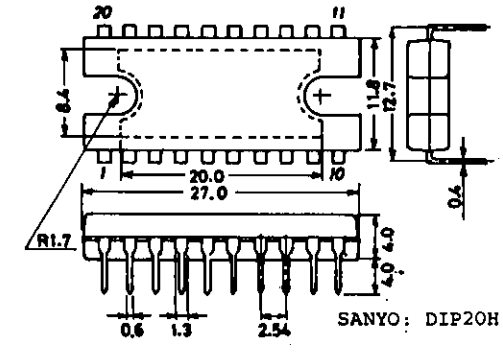
Allowable Operating Conditions at Ta=25°C

				unit
Supply Voltage	V_{CC1}		2.3 to 6.0	V
	V_{DD}		2.3 to 6.0	V
"H" Level Input Voltage	V_{IH}	$GND \leqq V_{IN}$, I_{OUT}=200mA	V_{DD}-6.0 to V_{DD}-2.3	V
"L" Level Input Voltage	V_{IL}	$I_{OUT} \leqq 100\mu A$	V_{DD}-0.7 to V_{DD}+15	V

Pin Assignment



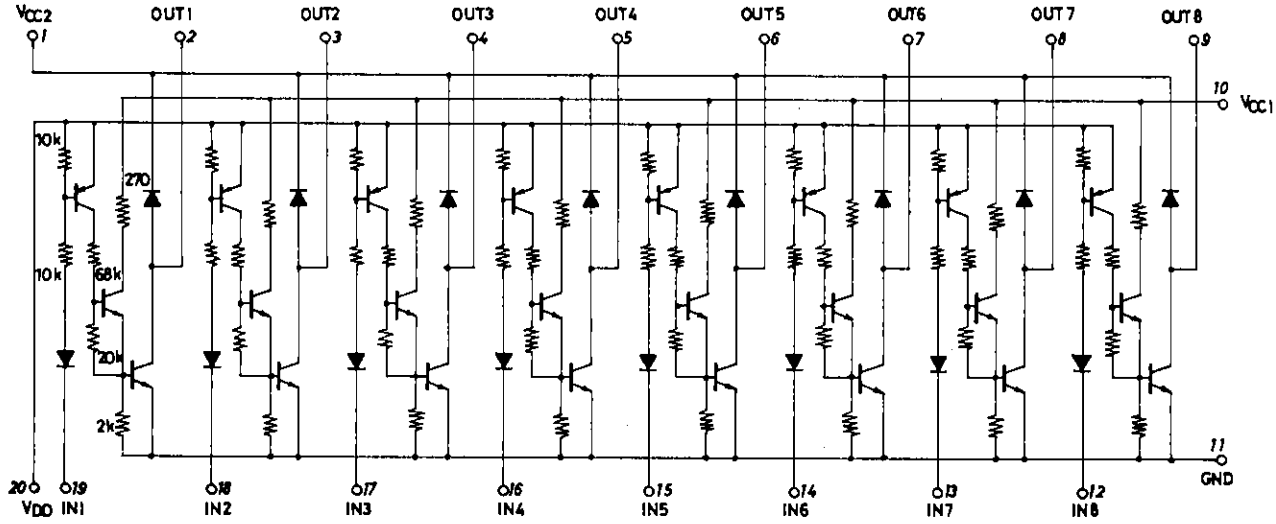
Package Dimensions 3037A-D20HIC
(unit : mm)



Electrical Characteristics at Ta=25°C, $V_{DD}=V_{CC1}=V_{CC}$

			min	typ	max	unit
Output Voltage	V_{OUT1}	V_{CC}=2.3V, $V_{IN}=V_{CC}$-2.3V, I_{OUT}=200mA			0.4	V
Output Voltage	V_{OUT2}	V_{CC}=3.5V, $V_{IN}=V_{CC}$-3.0V, I_{OUT}=200mA			0.25	V
Output Voltage	V_{OUT3}	V_{CC}=6.0V, $V_{IN}=V_{CC}$-5.5V, I_{OUT}=400mA			0.5	V
Output Sustain Voltage	$V_{O(sus)}$	I_{OUT}=400mA, t≦10us	10			V
Input Current	I_{IN}	$V_{IN}=V_{CC}$-6.0V, I_{OUT}=0	-1.0			mA
Supply Leakage Current	$I_{CC(OFF)}$	V_{CC}=6.0V, $V_{IN}=V_{CC}$			20	μA
Output Leakage Current	I_{OFF}	$V_{OUT}=V_{CC}$=6.0V, $V_{IN}=V_{CC}$-0.7V			100	μA
Spark Killer Diode Forward Voltage	$V_{F(S)}$	$I_{F(S)}$=400mA			3.0	V
Spark Killer Diode Reverse Current	$I_{R(S)}$	V_{OUT}=0V, V_{CC2}=6.0V			30	μA

Equivalent Circuit



Unit (resistance: Ω)