

<b>SANYO</b>	NO.1482C	<b>LB1249</b>
	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.

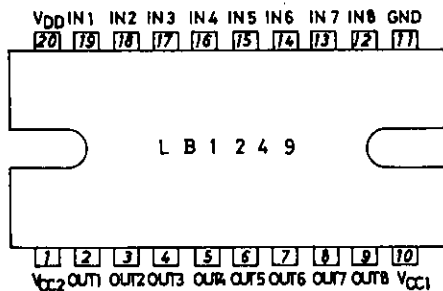
**Absolute Maximum Ratings at Ta=25°C**

			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	$V_{IN}$ $GND \leq V_{IN}$	$V_{DD}-7.0$ to $V_{DD}+15$	V
Output Current	$I_{OUT}$ Per unit	400	mA
Spark Killer Diode	$I_{FSM}$ Pulse width $\leq 35ms$	400	mA
Forward Current	duty 5%		
GND Pin Current	$I_{GND}$ Pulse width $\leq 35ms$	3.4	A
Instantaneous Current	$I_{CCP}$ Pulse width $\leq 35ms$	3.2	A
Dissipation	duty 5%		
Allowable Power Dissipation	$P_{dmax}$	3.0	W
Operating Temperature	$T_{opr}$	-20 to +75	°C
Storage Temperature	$T_{stg}$	-40 to +125	°C

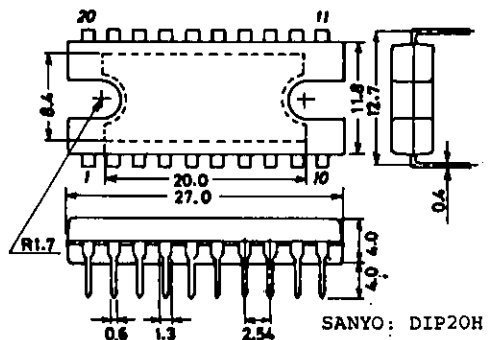
**Allowable Operating Conditions at Ta=25°C**

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

**Pin Assignment**

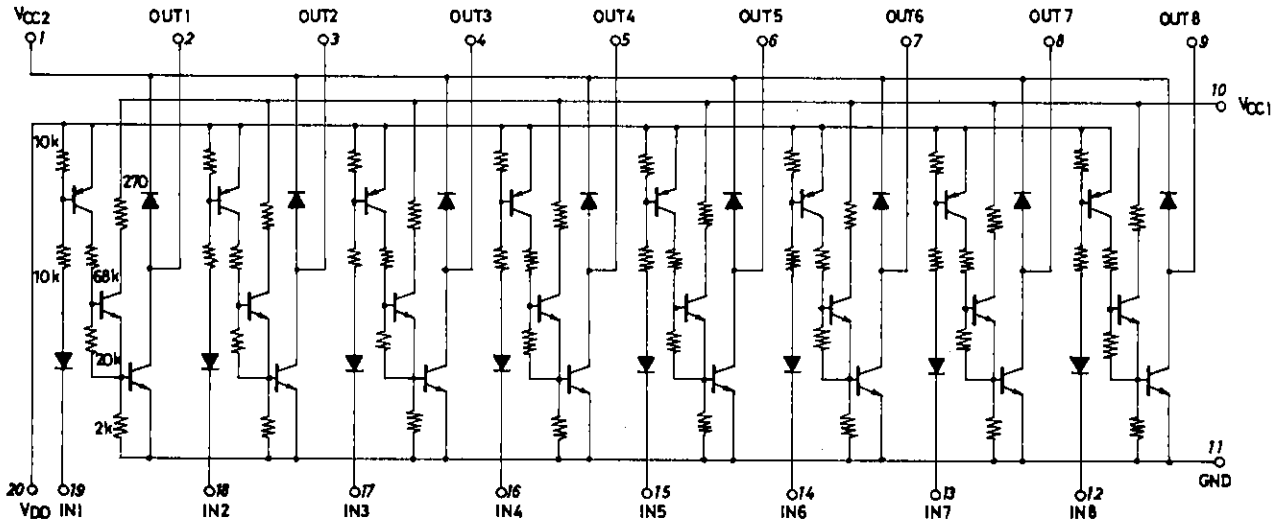


**Package Dimensions 3037A-D20HIC (unit: mm)**

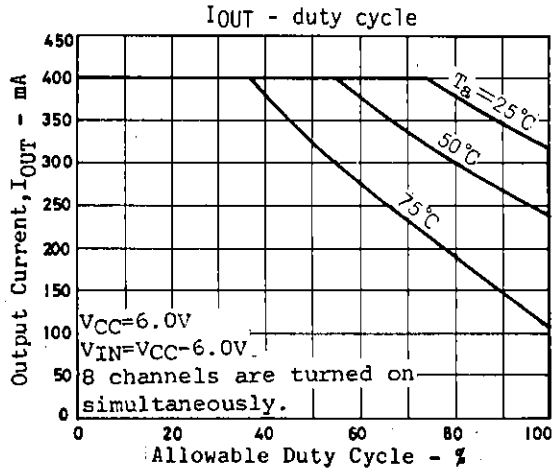


Electrical Characteristics at $T_a=25^{\circ}\text{C}$ , $V_{DD}=V_{CC1}=V_{CC}$			min	typ	max	unit
Output Voltage	$V_{OUT1}$	$V_{CC}=2.3\text{V}, V_{IN}=V_{CC}-2.3\text{V},$ $I_{OUT}=200\text{mA}$			0.4	V
Output Voltage	$V_{OUT2}$	$V_{CC}=3.5\text{V}, V_{IN}=V_{CC}-3.0\text{V},$ $I_{OUT}=200\text{mA}$			0.25	V
Output Voltage	$V_{OUT3}$	$V_{CC}=6.0\text{V}, V_{IN}=V_{CC}-5.5\text{V},$ $I_{OUT}=400\text{mA}$			0.5	V
Output Sustain Voltage	$V_{O(sus)}$	$I_{OUT}=400\text{mA}, t \leq 10\mu\text{s}$	10			V
Input Current	$I_{IN}$	$V_{IN}=V_{CC}-6.0\text{V}, I_{OUT}=0$	-1.0			mA
Supply Leakage Current	$I_{CC(OFF)}$	$V_{CC}=6.0\text{V}, V_{IN}=V_{CC}$			20	$\mu\text{A}$
Output Leakage Current	$I_{OFF}$	$V_{OUT}=V_{CC}=6.0\text{V}, V_{IN}=V_{CC}-0.7\text{V}$			100	$\mu\text{A}$
Spark Killer Diode Forward Voltage	$V_{F(S)}$	$I_{F(S)}=400\text{mA}$			3.0	V
Spark Killer Diode Reverse Current	$I_{R(S)}$	$V_{OUT}=0\text{V}, V_{CC2}=6.0\text{V}$			30	$\mu\text{A}$

Equivalent Circuit



Unit (resistance:  $\Omega$ )



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