

**SANYO**

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**

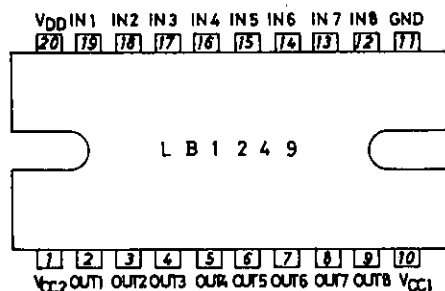
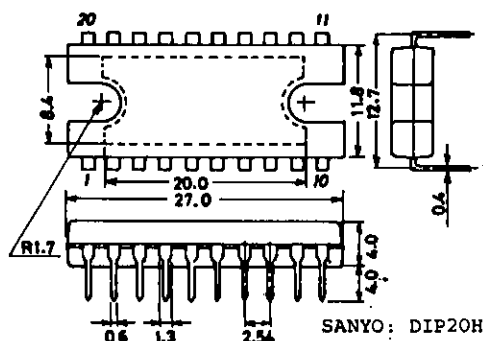
- Low active input type.
- On-chip input protecting diodes.
- High current capacity (400mA) and low saturation voltage (0.5Vmax).
- On-chip spark killer diodes.
- Wide duty due to Pd of 3W max.

**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	$V_{IN}$	$GND \leq V_{IN}$	V
Output Current	$I_{OUT}$	Per unit	400 mA
Spark Killer Diode	$I_{FSM}$	Pulse width $\leq 35$ ms	400 mA
Forward Current		duty 5%	
GND Pin Current	$I_{GND}$	Pulse width $\leq 35$ ms	3.4 A
Instantaneous Current	$I_{CCP}$	Pulse width $\leq 35$ ms	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	$V_{IH}$	$GND \leq V_{IN}, I_{OUT}=200$ mA	V
"L" Level Input Voltage	$V_{IL}$	$I_{OUT} \leq 100$ μA	V
		$V_{DD}-6.0$ to $V_{DD}-2.3$	V
		$V_{DD}-0.7$ to $V_{DD}+15$	V

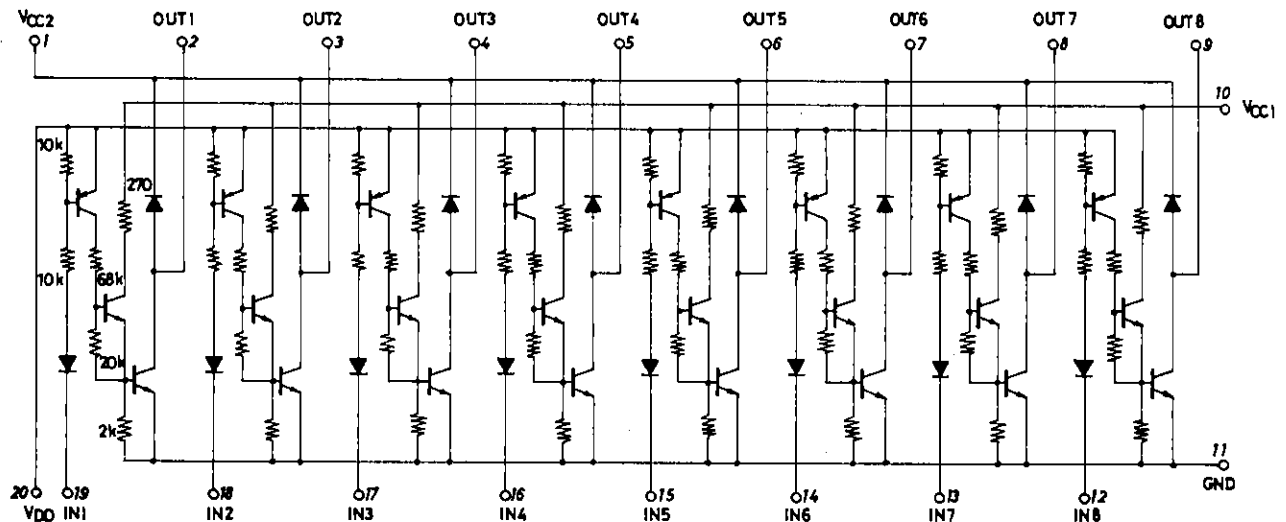
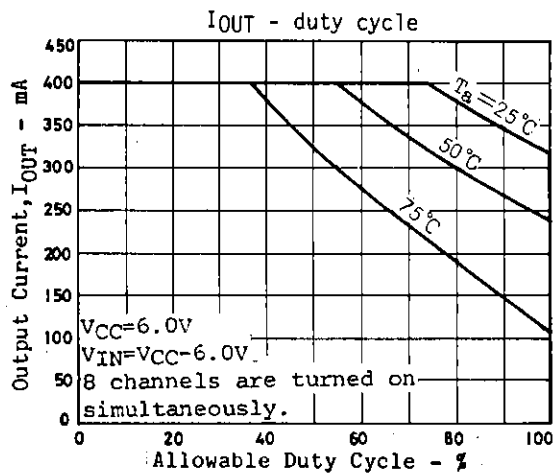
**Pin Assignment****Package Dimensions 3037A-D20HIC  
(unit : mm)**

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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	$V_{F(S)}$	$I_{F(S)}=400\text{mA}$				3.0	V
Forward Voltage							
Spark Killer Diode	$I_{R(S)}$	$V_{OUT}=0\text{V}$ , $V_{CC2}=6.0\text{V}$				30	$\mu\text{A}$
Reverse Current							

### Equivalent Circuit

Unit (resistance:  $\Omega$ )

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