Monolithic Digital IC

No.2062B

LB1267

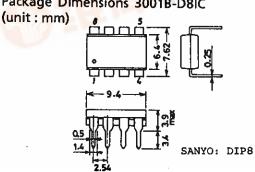
2-Channel, High-Current, Low-Saturation Driver Array

Features and Functions

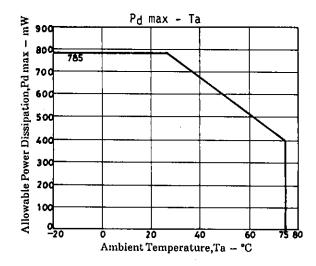
- · 2-channel magnet driver
- High current (2.0A max.) and low saturation voltage (1.5V)
- · On-chip spark killer diodes

| Absolute Maximum Ratings at | Γa=25°C | | | unit | |
|---|---------------------|--|----------------|-----------|--|
| Maximum Supply Voltage | V _{CC} max | x | 8.0 | V | |
| Output Supply Voltage | V_{OUT} | | 10.0 | V | |
| Input Supply Voltage | V_{IN} | | 12.0 | V | |
| Output Current | I_{OUT1} | ton≤50ms,duty=20%, solenoid drive stage (ch1) | 1.0 | A SG-C | |
| | I_{OUT2} | ton \leq 50ms, duty = 5%, motor drive stage (ch2) | 2.5 | A | |
| Spark Killer Diode | I _{FSM1} | $t \le 5 \text{ms,duty} = 5\%$ | 1.0 | Α | |
| Forward Current | | solenoid drive stage (ch1) | | | |
| | I _{FSM2} | $t \leq 5$ ms, duty = 5%, | 2.5 | Α | |
| | | motor drive stage (ch2) | | | |
| V _{CC} Instantaneous Flow-Out Current | I_{CCP} | $t \le 5 \text{ms,duty} = 5\%$, | 3.0 | Α | |
| GND Pin Flow-Out Current | $I_{ m GND}$ | $t \leq 5 \text{ms,duty} = 20\%$ | 3.0 | Α | |
| Allowable Power Dissipation | Pd max | | 785 | mW | |
| Operating Temperature | Topr | | -20 to +75 | °C | |
| Storage Temperature | Tstg | | -40 to + 125 | °C | |
| Allowable Operating Range at Ta = 25°C | | | | unit | |
| Supply Voltage | V _{CC} | | 3.0 to 7.0 | V | |
| Input 'H'-Level Voltage | V_{IH} I_C | $_{\rm OUT}$ =300mA | 3.0 to 11.0 | V | |
| Input 'L'-Level Voltage | V_{IL} I_{C} | _{OUT} ≦100μA | -0.3 to +0.7 | V | |
| | | | | | |

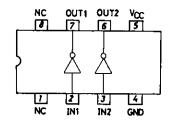
Package Dimensions 3001B-D8IC



| Electrical Characteristics at Ta = 25°C | | | min | typ | max | unit |
|---|--------------|--|-----|-----|------|----------------------|
| Output Voltage | v_{oh1} | $V_{IN} = 4.5 V, V_{CC} = 5.0 V,$ | | | 0.65 | V |
| | | $I_{OUT} = 500 \text{mA (ch1)}$ | | | | |
| | V_{OH2} | $V_{IN} = 6.0V, V_{CC} = 7.0V,$ | | | 1.4 | \mathbf{V}^{\cdot} |
| | | $I_{OUT} = 1000 \text{mA} \text{ (ch1)}$ | • | | | |
| | V_{OH3} | $V_{IN} = 3.0 V, V_{CC} = 3.0 V,$ | | | 0.25 | V |
| | | I _{OUT} =300mA (ch2) | | | | |
| | V_{OH4} | $V_{IN} = 4.5 V, V_{CC} = 5.0 V,$ | | 0.5 | 0.7 | V |
| | | I _{OUT} =1000mA (ch2) | | | | |
| | V_{OH5} | $V_{IN} = 6.0 V, V_{CC} = 7.0 V,$ | | 1.0 | 1.5 | V |
| | | $I_{OUT} = 2000 \text{mA (ch2)}$ | | | | |
| Input Current | I_{IN1} | $V_{IN} = 6.0V \text{ (ch1)}$ | | | 1.0 | mΑ |
| | I_{1N2} | $V_{IN} = 6.0V \text{ (ch2)}$ | | | 2.0 | mA |
| Power Source + Output | I_{OFF} | $V_{IN} = 0.5 V, V_{OUT} = V_{CC} = 6.0 V$ | | | 30 | μA |
| Leakage Current | | | | | | |
| Spark Killer Diode | V_{F1} | $I_F = 1000 \text{mA (ch1)}$ | | | 3.0 | V |
| Forward Voltage | V_{F2} | $I_F = 2000 \text{mA (ch2)}$ | | | 3.0 | V |
| Output Sustain Voltage | $V_{O(sus)}$ | $I_{OUT} = 400 \text{mA}$ | 10 | | | V |

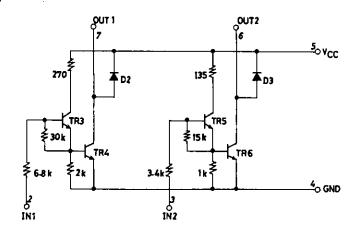


Pin Assignment



Note) Do not use NC pin.

Equivalent Circuit



Unit (resistance: Ω)

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