



3-Channel High-Current Low-Saturation Driver

FEATURES

- 3-Channel Magnet Driver.
- High Current (2.0A Max.) and Low Saturation Voltage (1.5V).
- Parallel Operation Capability (Channel 1+2).
- On-Chip Spark Killer Diodes.

ABSOLUTE MAXIMUM RATINGS (at Ta=25°C)

| | | UNIT |
|--|---|--------------|
| Maximum Supply Voltage | V _{CC} max | 8.0 V |
| Output Supply Voltage | V _{OUT} | 10.0V |
| Input Supply Voltage | V _{IN} | 12.0V |
| Output Current | I _{OUT1} T _{ON} ≤50mS, Duty=20% Solenoid Drive Channel (ch1,2) | 1.0A |
| | I _{OUT2} T _{ON} ≤50mS, Duty=5% Motor Drive Channel (ch3) | 2.5A |
| Spark Killer Diode Forward Current | I _{FSM1} T≤5mS, Duty=5%, Solenoid Drive Channel (ch1,2) | 1.0A |
| | I _{FSM2} T≤5mS, Duty=5%, Motor Drive Channel (ch3) | 2.5A |
| V _{CC} Instantaneous Flow-out Current | I _{CCP} T≤5mS, Duty=5% | 3.0A |
| GND Flow-out Current | I _{GND} T≤50mS, Duty=20% | 3.0A |
| Allowable Power Dissipation | P _{DMAX} | 785mW |
| Operating Temperature | T _{OPG} | -20 ~ +75°C |
| Storage Temperature | T _{STG} | -65 ~ +150°C |

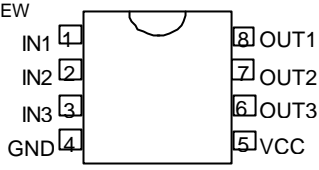
ALLOWABLE OPERATING CONDITIONS (at Ta=25°C)

| | | | |
|-------------------------|-----------------|-------------------------|--------------|
| Supply Voltage | V _{CC} | | 3.0 ~ 7.0V |
| Input "H" Level Voltage | V _{IH} | I _{OUT} =300mA | 3.0 ~ 11.0V |
| Input "L" Level Voltage | V _{IL} | I _{OUT} ≤100μA | -0.3 ~ +0.7V |

ORDERING INFORMATION

LB1268 XX

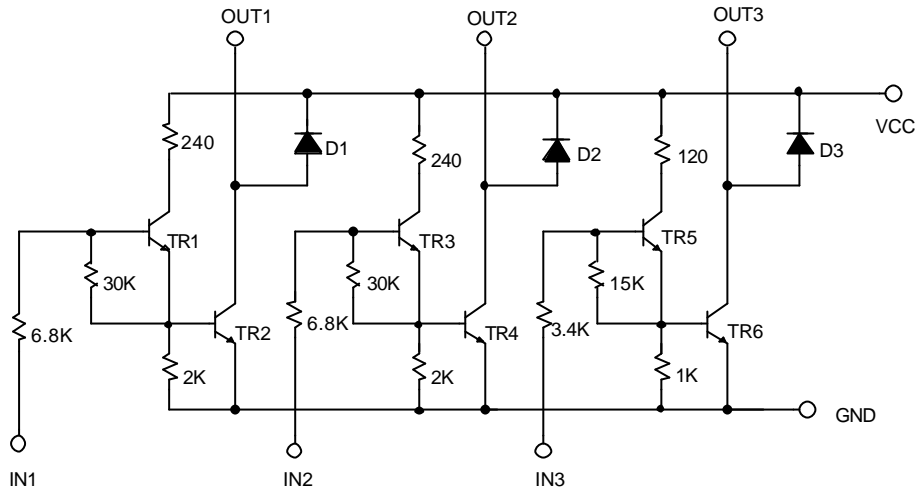
PACKAGE TYPE
 N: PLASTIC DIP
 TEMPERATURE
 C: 0°C~+70°C

| ORDER NUMBER | PIN CONFIGURATION |
|---------------------------|---|
| LB1268CN (PLASTIC DIP) | TOP VIEW  |

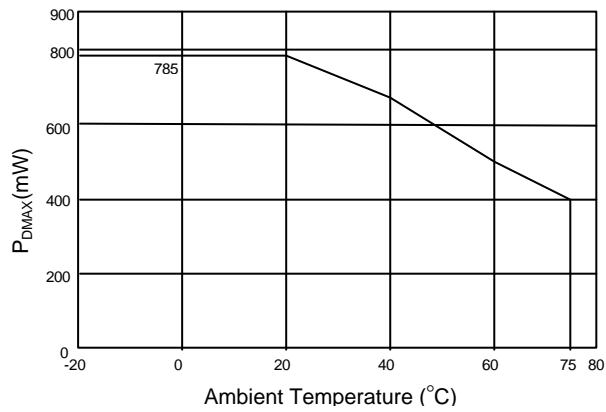
ELECTRICAL CHARACTERISTICS (Ta=25°C)

| PARAMETER | TEST CONDITIONS | SYMBOL | MIN. | TYP. | MAX. | UNIT | |
|---------------------------------------|--|---------------------|------|------|------|------|---|
| Output Voltage | V _{IN} =4.5V, V _{CC} =5.0V, I _{OUT} =500mA (ch1,2) | V _{OH1} | | 0.44 | 0.65 | V | |
| | V _{IN} =6.0V, V _{CC} =7.0V, I _{OUT} =1000mA (ch1,2) | V _{OH2} | | 0.88 | 1.4 | V | |
| | V _{IN} =6.0V, V _{CC} =7.0V, I _{OUT} =1600mA (ch1,2 parallel) | V _{OH3} | | | 1.4 | V | |
| | V _{IN} =3.0V, V _{CC} =3.0V, I _{OUT} =300mA (ch3) | V _{OH4} | | 0.19 | 0.25 | V | |
| | V _{IN} =4.5V, V _{CC} =5.0V, I _{OUT} =1000mA (ch3) | V _{OH5} | | | 0.5 | 0.7 | V |
| | V _{IN} =6.0V, V _{CC} =7.0V, I _{OUT} =2000mA (ch3) | V _{OH6} | | | 1.0 | 1.5 | V |
| Input Current | V _{IN} =6.0V (ch1,2) | I _{IN1} | | | 1.0 | mA | |
| | V _{IN} =6.0V (ch3) | I _{IN2} | | | 2.0 | mA | |
| Power Source + Output Leakage Current | V _{IN} =0.5V, V _{OUT} =V _{CC} =6.0V | I _{OFF} | | | 30 | μA | |
| Spark Killer Diode Forward Voltage | I _F =1000mA (ch1,2) | V _{F1} | | | 3.0 | V | |
| | I _F =2000mA (ch3) | V _{F2} | | | 3.0 | V | |
| Output Sustain Voltage | I _{OUT} =400mA | V _{O(SUS)} | 10 | | | V | |

EQUIVALENT CIRCUIT

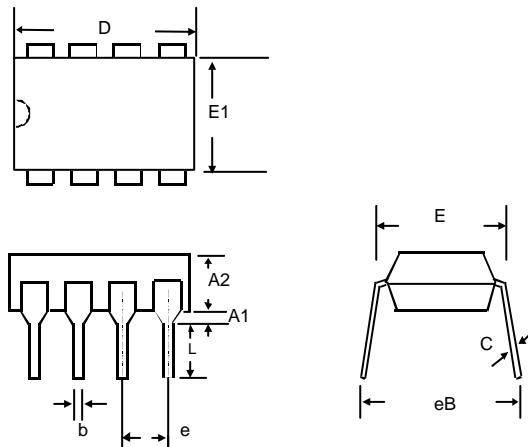


Allowable Power Dissipation vs Temperature



PHYSICAL DIMENSIONS

- 8 LEAD PLASTIC DIP (unit: mm)



| SYMBOL | MIN | MAX |
|--------|------------|-------|
| A1 | 0.381 | — |
| A2 | 2.92 | 4.96 |
| b | 0.35 | 0.56 |
| C | 0.20 | 0.36 |
| D | 9.01 | 10.16 |
| E | 7.62 | 8.26 |
| E1 | 6.09 | 7.12 |
| e | 2.54 (TYP) | |
| eB | — | 10.92 |
| L | 2.92 | 3.81 |