## FEATURES

- *Current Limit Set at 3.0 Amps*
- *External Potentiometer Speed Control*
- *0.5V to 5V External Voltage Speed Control*
- *2-Quadrant Operation*
- *Open-Loop Velocity Mode*
- *Cycle by Cycle Short Circuit Protection*
- *Requires 8 - 35VDC*
- *Freewheel and Direction Inputs*
- *TTL-CMOS Compatible Inputs*
- *Compact Size (1.50" X 1.50" X 0.712")*
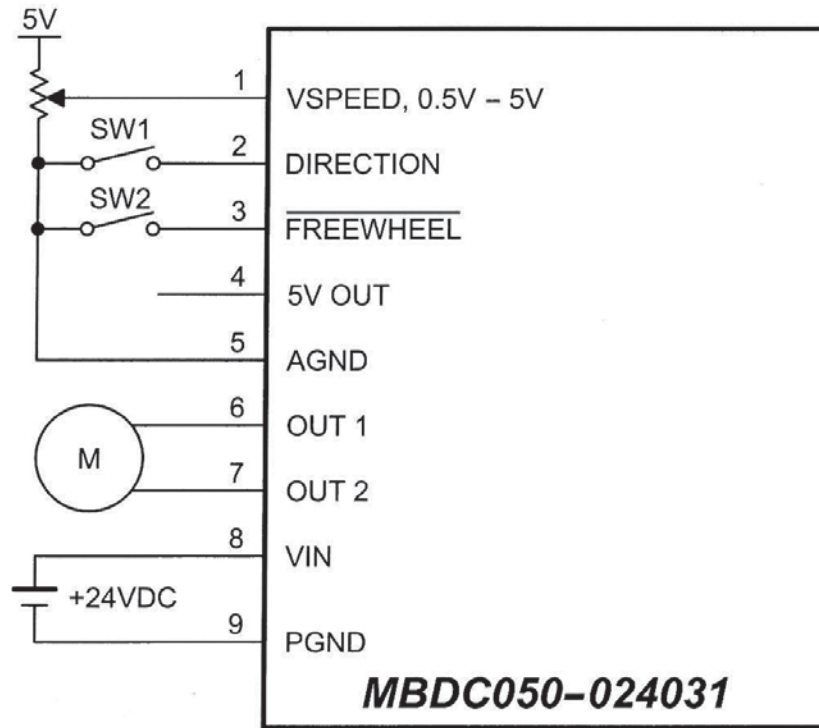- *Screw Type Terminal Block*

## DESCRIPTION

The MBDC050-024031 driver is designed to drive DC brush motors at peak currents of up to 3.0A and 35V. An external potentiometer (10K) or external voltage (0.5-5VDC) can be used to control the speed. Setting JP1 to positions 2-3 allows an external PWM signal control the speed of the motor as well. The direction of the motor can be present by the direction control input. To disable energy from the motor, there is a Freewheel input that can be grounded.

## DIMENSIONS



1.300   .100

.74

PWR LED

□ 1.50   JP1   1

1   TB1

□ 1.300

∅ .125
4 PLCS     .100
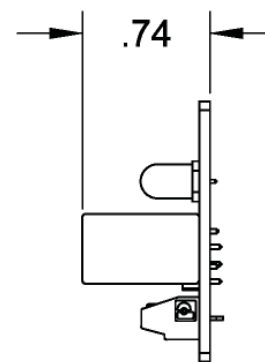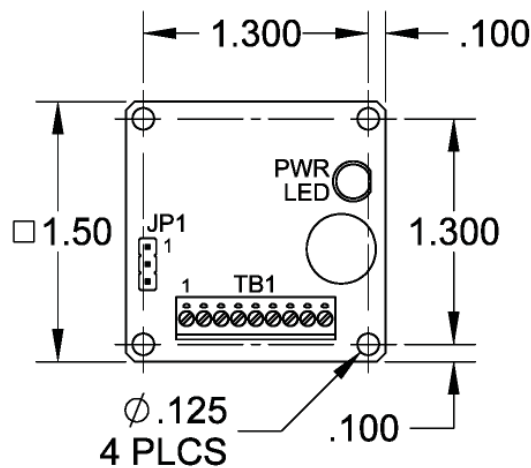
*All units are in inches*

L010613

## WIRING DIAGRAM



MBDC050-024031

## SPECIFICATIONS

| Model # | Description |
|---|---|
| MBDC050-024031 | BDC Driver, 3A, 8-36V |
| PSA24V2.7A | DC Power Supply 24VDC at 2.7 Amps |

| | |
|---|---|
| Vspeed Control: (TB1, Pin 1): | 0VDC - Motor Stopped<br>5VDC - Max Speed (6VDC max) |
| Control Inputs (TB1, Pins 2-3): | TTL-CMOS Compatible<br>Logic "0" = 0-0.8VDC<br>Logic "1" = Open |
| Direction Control (TB, Pin 2): | Logic "1" (open) - Clockwise<br>Logic "0" - Counterclockwise |
| Freewheel: (TB1, Pin 3) | Logic "1" (open) - Motor is Enabled<br>Logic "0" - Motor is de-energized and will coast |
| +5VDC Output: (TB1, Pin 4) | 10mA Maximum |
| Vspeed or External PWM (JP1) | Position 1-2: External Speed Volatge<br>Position 2-3: External 5V PWM Signal<br>(7KHz - 10KHz) |
| Power Requirements<br>Output Current Rating: (TB1) | 8VDC (min) - 35VDC (max)<br>3.0 amperes peak maximum operating current. |
| Operating Temperature: | 0°C to 70°C |