

EasyDriver v4.4

An easy to use bipolar stepper motor driver
 Use 4 wire, 6 wire or 8 wire stepper motors
 From about 150mA/phase to about 750mA/phase
 Defaults to 5V for Vcc (logic supply), settable to 3.3V
 Supply 8V to 30V DC power input on JP1
 Do not connect or disconnect motor
 while EasyDriver is powered

TP1 - VREF input to driver
 Monitor this test point with meter
 as you adjust current adj pot
 Valid range 1.0V to Vcc
 At VREF of 5V max current will be 833mA
 At VREF of 3.3V max current will be 550mA
 At VREF of 1V max current will be 166mA
 Minimum current gives smoothest microsteps
 Maximum current gives highest torque

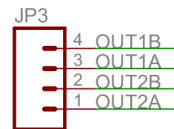
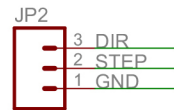
PFD intermediate voltage
 Change R12 and add in
 R17 to create any voltage
 on PFD for best high
 speed performance.
 See datasheet

DEFAULT OPTIONS
 Short JP5, JP6, JP7 pins
 to GND or Vcc to override

SLEEP = Vcc (awake)
 MS1 = Vcc (1/8 microstep)
 MS2 = Vcc (1/8 microstep)
 ENABLE = GND (enabled)
 RESET = Vcc (not reset)
 PFD = Vcc (slow decay mode)

DIR is level sensitive
 A rising edge on STEP
 causes a step
 Both take 0V to Vcc

Coil 1 of motor across
 OUT1B and OUT1A
 Coil 2 of motor across
 OUT2B and OUT2A



Power Input
 8V to 30V (Vcc = 5V)
 6.3V to 30V (Vcc = 3.3V)

V+

Must use LM317
 For 30V V+ input

SJ1 Normally Shorted
 Cut to use your own
 Vcc source from JP4

Vcc output
 Max 70mA used by EasyDriver
 The rest you can use

Both C3 and C1 must
 Be rated for >=35V

SJ2 Normally Open -> Vcc=5.0V
 SJ2 Closed -> Vcc = 3.3V

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Change List:
 v4.3 (12/09/2009)
 v4.3 Added mounting holes
 v4.4 (10/24/2010)
 Fixed MIN/MAX silkscreen
 All vias now .02"
 v4.4 (1/3/2012)
 C3 now at 47uF

