

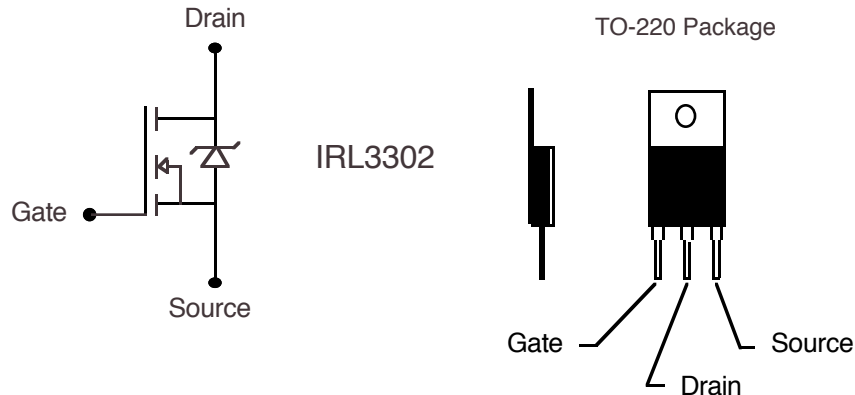
STEPPER MOSFET DRIVER UPDATE

The unipolar driver based on the TIP 120 Darlington transistor driver described in **Easy Step'n** works well. There is another solution based on the IRL3302 MOSFET. The on resistance is very low, so the voltage drop across the MOSFET will be low and, as a consequence, the power dissipated in the MOSFET will be low.

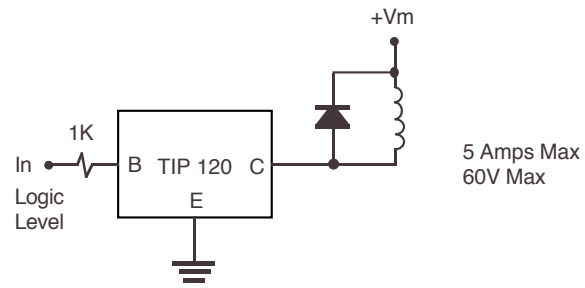
MOSFETs have a very low on resistance ($R_{DS(on)}$), so the power wasted in them is minimal. The MOSFET must be fully turned on when a +5 volt logic level is applied to the gate terminal. A MOSFET which has this capability is called a "logic level" MOSFET.

The example driver is based on the International Rectifier IRL3303 N-channel logic level MOSFET.

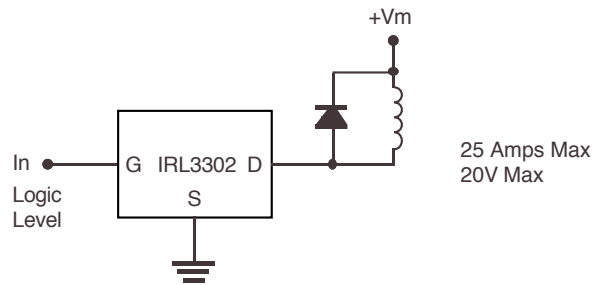
Max voltage (volts)	20
Max Current (amps)	25 @100°C
$R_{DS(on)}$ (ohms)	0.023



Darlington Transistor Driver



MOSFET Driver



The IRL3302 driver may be substituted for the TIP 120 drivers shown in the schematic on page 64 in **Easy Step'n**.