

15.10 dc Power Supply Options for PIC Projects

- (1) a 6 V, 9 V, or 12 V wall transformer with a 5 V regulator
- (2) a potted power supply with ac input and 5 V regulated output
- (3) four AA batteries (6 V) in series with a 5 V regulator
- (4) a 9 V battery with a 5 V regulator
- (5) a rechargeable battery (or batteries in series) with a 5V regulator
- (6) a full featured instrumentation power supply

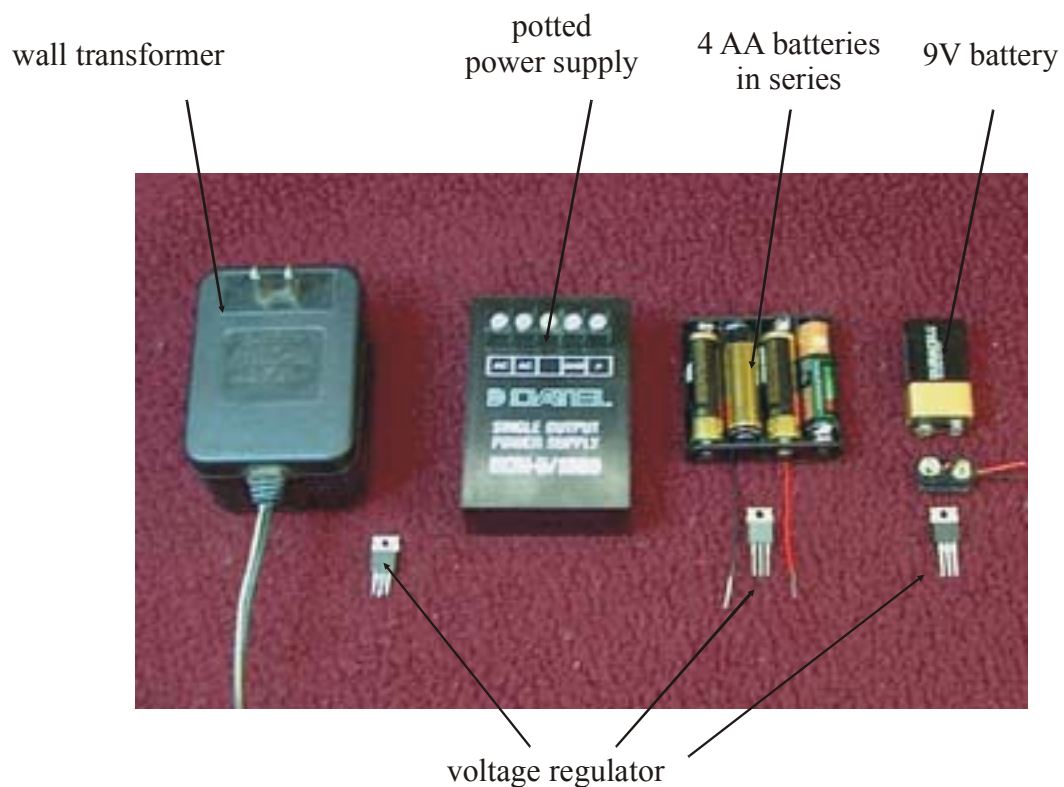


Figure 15.1 Low Cost Power Supply Options

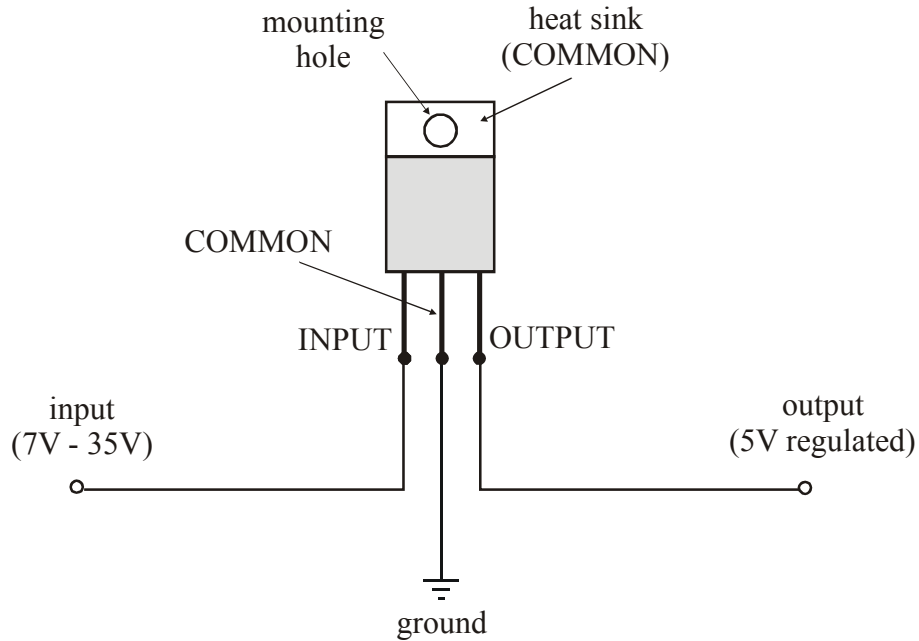


Figure 15.3 7805 Voltage Regulator Connections

Table 15.1 5V Power Supply Options Summary

Device	Typical current	Relative size	Relative cost
instrumentation power supply	1 A – 5 A	large	very expensive (~\$1000)
small potted, open frame, or enclosed power supply	1 A – 10 A	medium	moderately expensive (~\$20-\$100)
wall transformer	1 A	small	cheap
9V battery	100 mA	small	cheap
4 AA batteries	100 mA	small	cheap
rechargeable battery	See Section 15.11	small	moderate