9.2.6 High Stability 10-V Regulator

Using a high-stability shunt voltage reference in the feedback path, such as the LM329, provides damping necessary for a stable, low noise output.

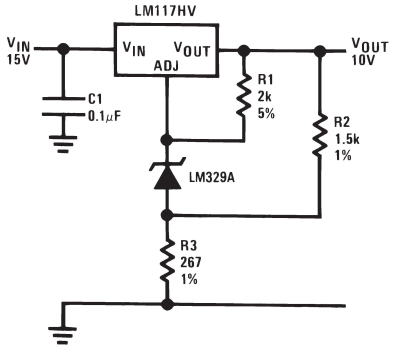
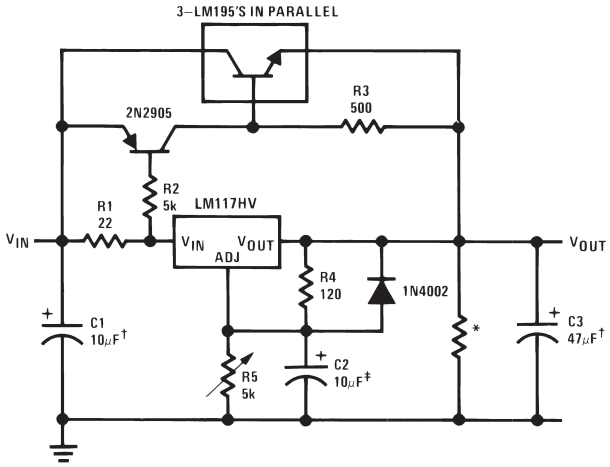


Figure 22. High Stability 10-V Regulator

9.2.7 High Current Adjustable Regulator

Using the LM195 power transistor in parallel with the LM117HV can increase the maximum possible output load current. Sense resistor R1 provides the 0.6 V across base to emitter to turn on the PNP. This on switch allows current to flow, and the voltage drop across R3 drives three LM195 power transistors designed to carry an excess of 1 A each. Note the selection of R1 determines a minimum load current for the PNP to turn on. The higher the resistor value, the lower the load current must be before the transistors turn on.



†Solid tantalum
*Minimum load current = 30 mA
‡Optional—improves ripple rejection

Figure 23. High Current Adjustable Regulator

9.2.8 Emitter Follower Current Amplifier

The LM117HV is used as a constant current source in this emitter follower circuit. The LM195 power transistor is being used as a current gain amplifier, boosting the INPUT current. The LM117HV provides a stable current bias than just using a resistor.