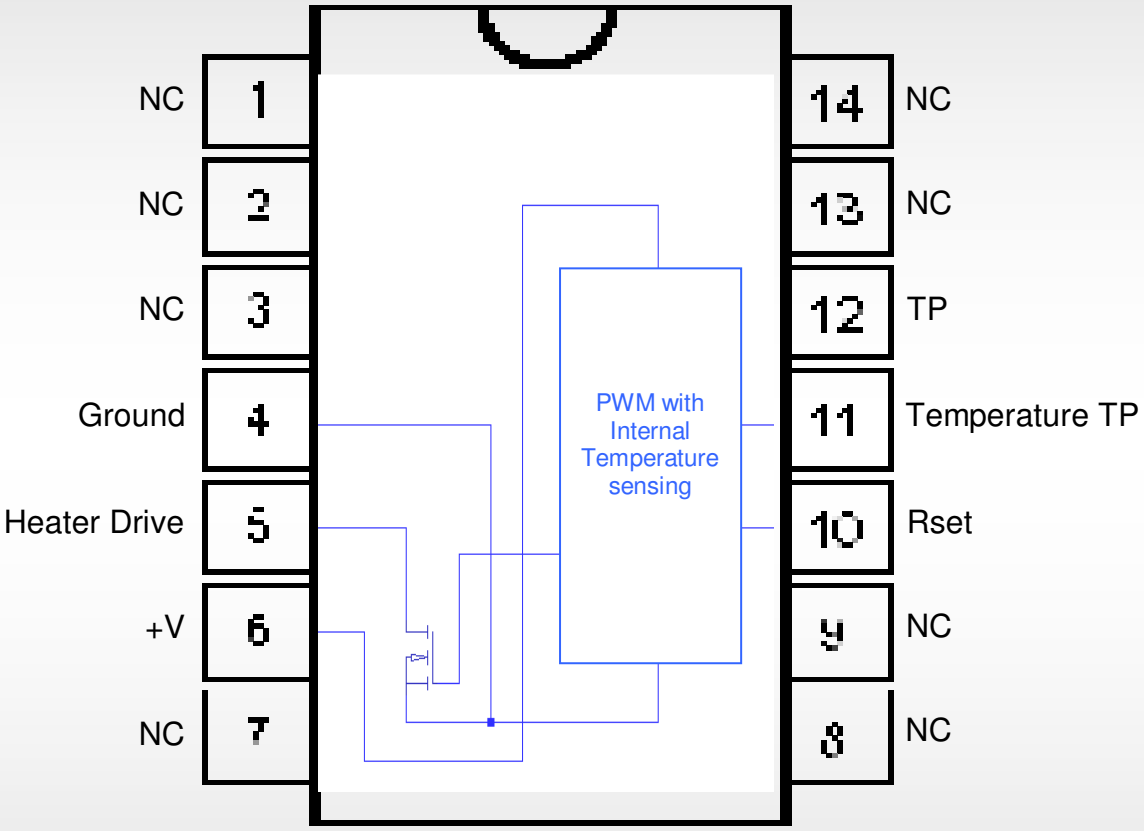
Radiation tolerant, latchup-free

K15

PWM Heater Controller with internal Temperature Sense and High-Current FET output, with Resistor Setpoint



The K15 is a very easy to use PWM heater controller. Simply connect a power supply, a resistive heating element, and a single external Rset resistor to implement a complete heated temperature control system. The K15 includes an internal temperature sensor, and the K15 body can either be thermally attached, in a normal orientation, or it can be inverted and the gold lid of the unit can be soldered to the heated item to be temperature controlled.

The external resistive heater can be connected between any positive voltage between 1 to 30V, and the K15 itself can be operated with any regulated voltage between 5 and 18V. Note that the thermal setpoint will change dependent on the supply voltage, so the stability of the supply voltage is somewhat important. The output FET will go to full “on” when the K15 body temperature is low, it will go to full “off” when it is too hot, and it will proportionally PWM, using its internal oscillator, to maintain the sensed temperature near the setpoint which was determined by the external Rset.