20mA LED Ballast

I use this circuit for general use to power white LEDs, like a headset light I use on my desk and a keyboard light for my computer. I built it into a tiny Radio Shack project box (270-288), which they no longer sell. I put heat-shrink tubing around the female output connector (RS P/N 273-1743), so that the contacts are not exposed, but you can still plug and unplug it.

Note that if the voltage limit is set too high, the LED may blow out when the LED (not the ballast) is first turned on. Bring the voltage limit up just past the point where the LED doesn’t get any brighter.

---

**DANGER!!!**  
This circuit is not isolated!!!  
Do not allow connections to be exposed!!!

**20mA LED Ballast**
Andrew Morris  marr3763@bellsouth.net