

# 1W ultra-bright high-power LEDs



common specifications

<b>power</b>	1 Watt
<b>current</b>	350 mA
<b>angle</b>	120°
<b>size (LxBxH)</b>	21.37 x 20.00 x 5.95 mm

color-specific specifications

color	wave length	color temprature	voltage at 350 mA	light	minimum LM317 input voltage
blue	470 nm		2.8 - 3.8	10 lm	8.0
green	525 nm		2.8 - 3.8	30 lm	8.0
red	625 nm		1.8 - 2.4	30 lm	6.6
yellow	590 nm		2.8 - 3.8	28 lm	8.0
white		3000-500 °K	2.8 - 3.8	25 lm	8.0

Connections to the LED must be soldered to the copper fields marked + and -. The LED must be driven by a constant-current source. A simple way to create a constant-current source is to use an LM317 with a suitable resistor. The voltage provided to the LM317 must be sufficient for both the LED (see table) and the LM317 itself (4.2V). Both the LM317 and the LED must be cooled. If not, the LM317 will switch itself off when it gets too hot, but when the LED gets too hot it will be destroyed.

