

Product Overview

The 2009 MicroPuck[™] is a versatile, compact solution for powering (1) High-Power LED, or strings of 5mm (T 1-3/4) LEDs, efficiently and with stability. This driver provides maximum illumination to the LED while still mimicking the light drop-off of an incandescent bulb, which dims as the batteries are used up. Unlike an incandescent bulb, the driver's current consumption drops at very low voltages, allowing usable light to be produced by the LED much longer than conventional flashlights. Battery recovery (after the flashlight has been turned off) is also improved.



The 2009 MicroPuck

The standard offering is a 0.45"L X 0.3"W X 0.26"H encapsulated MicroPuck. Custom sizes can be created to meet customers' requirements. Contact LUXdrive for more information. The MicroPuck is supplied with 24 AWG 6" colored leads.

Features

- **Low Cost:** The MicroPuck is a compact, low cost solution for providing current to LEDs with forward voltages in excess of supply voltages.
- **Safety & Reliability:** The MicroPuck is encapsulated by an insulating epoxy and is resistant to harsh environments and moisture.
- **Battery Tracking:** The output of the MicroPuck is relatively constant until the batteries have been drained to low power mode which provides some light for many more hours.
- **Small Size:** The MicroPuck is ideal for applications where size matters. Small size = more applications!

Typical Applications

- Drop-in Replacement Bulbs
- Pen Lights
- Solar Lighting
- Road Markers
- Portable Lighting & Flashlights
- Head-Lamps / Camp Light
- Desk & Reading Lamps
- Flashing & Strobe Lighting
- Cabinet & Display Case Lighting



Specifications

Input Voltage	3.0V _{DC}
Output Current, 2009	350mA ¹
Output Current, 2009-HI	400mA ¹
Operating Temperature	-40-+85°C
Storage Temperature	-40-+125°C

Absolute Maximum Ratings

Input Voltage	3.0V _{DC} ²
Output Voltage	8.0V _{DC} ²
Output Power	1.5W

Typical Characteristics

Efficiency	80%
Input Voltage Minimum	0.8V _{DC}

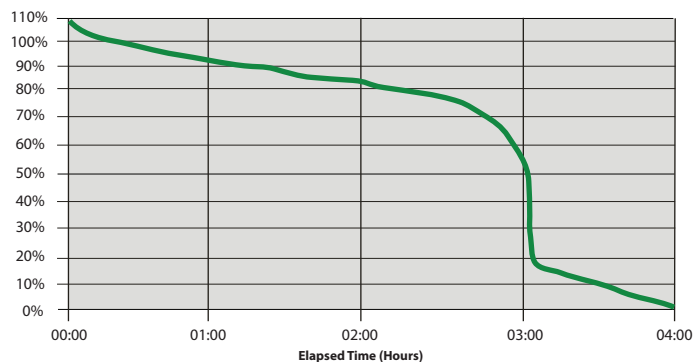


Figure 1
MicroPuck 2009 powering (1) white Luxeon I LED with 2 "AA" Alkalines

Physical Dimensions

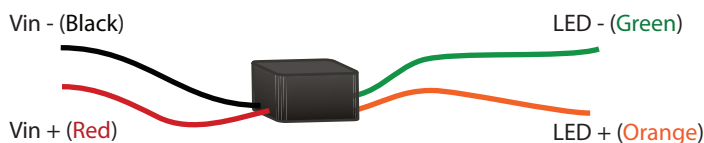
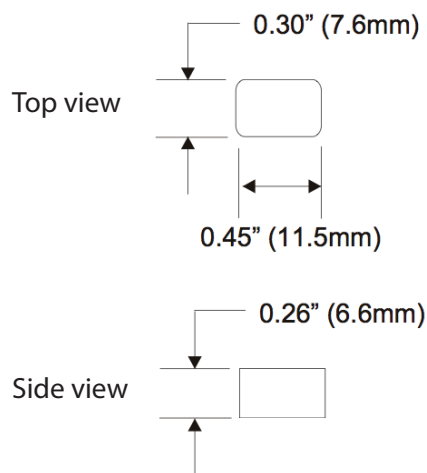


Figure 2
Wiring Connections

* - Luxeon is a registered trademark of LumiLEDs Corporation
1 - Measured with single emitter
2 - See "Additional Applications of the 2009 MicroPuck" for additional application information.