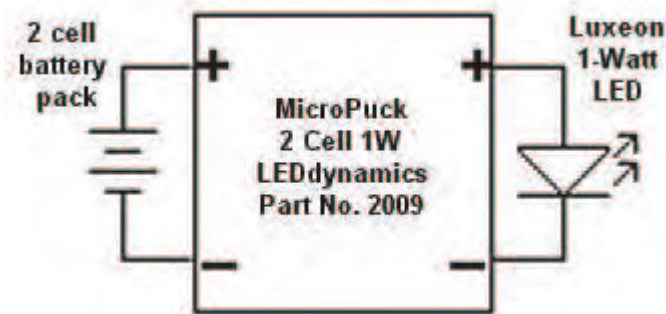


2-Cell 1W LED Drive Module For 1W, 5mm LEDs - No. 2009

The 2-Cell 1W drive module (2009) was designed to power (1) 1 Watt Luxeon, or strings of 5mm (T 1-3/4) LEDs (see app. note) efficiently and with stability. This driver has been designed to provide maximum illumination to the LED while mimicking the light dropoff 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 much longer than conventional flashlights. Battery recovery (after the flashlight has been off) is also improved. See our application notes or contact our engineering department for more details.

The standard offering is a .45"L X .3"W X .26"H encapsulated micropuck, but other sizes can be created to meet the customer's needs. The unit is supplied with 24 AWG 6" colored leads.

Applications include 2-Cell flashlights, drop in replacement bulbs for 2-Cell PR based lamps, pen lights, solar powered lighting, road markers and signal flasher units. Variations will soon be available for use with 1-Cell and also with 5 Watt capability.



Operating Specifications

Voltage	Min	.8 VDC
	Max	3 VDC
Power Consumption	Max	1.5 Watts
LEDs per channel	1	1W Luxeon
or (see app note)	12	5mm InGaN
Current output	Min	--- mA
(fixed)	Max	375 mA
Efficiency	Min	70%
(80% typical over range)	Max	85%

Key Benefits of the 2009 2-Cell 1 Watt Drive Module:

- **Cost:** The 2009 represents a low cost, small size option for providing current to LEDs with forward voltages in excess of the supply voltage.
- **Voltage Following:** The 2009's output follows the voltage of the batteries, but in a manner that provides more light during the midlife of the batteries. The unit can turn on with as little as 0.8V.
- **Design ease:** Ask about our matching array designs for use with this product.
- **Safety:** The unit is surrounded by insulative epoxy and is water resistant. The unit is short circuit and open circuit tolerant.

Note: Specifications are preliminary and are subject to change.

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