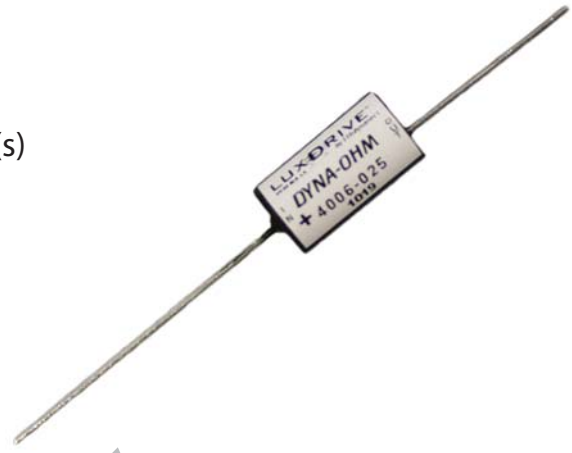
LUXdrive™ by LEDdynamics

4006 DynaOhm™

Two Wire Power Module

Product Overview

The 4006 DynaOhm™ by LUXdrive is a semiconductor based resistor that provides constant current to LEDs and strings of LEDs. It also reduces current to the LED(s) when the device temperature rises. It is the perfect replacement for a fixed reisistor in circuits where the input voltage varies. The simple two wire DynaOhm™ eliminates complicated math from low power LED circuits. The DynaOhm™ can drop up to 24V (25mA model) allowing for use with 24VDC automotive systems and one LED.



Features

- 20mA, 25mA, or 30mA, constant current output*
- Extremely small form factor* (0.25" diameter x 0.5" long)
- Output open circuit protection
- Pulse and strobe capable

Typical Applications

- Solar & Landscape Lighting
- Architectural Lighting
- Track Lighting
- Automotive & Marine Lighting
- Portable Lighting & Flashlights
- Point of Purchase Lighting
- Desk & Reading Lamps
- Signal & marker Lighting
- Flashing & Strobe Lighting
- Cabinet & Display Case Lighting
- Sign Lighting
- Flashlights

MADE IN U. S. A.

Pb

RoHS Compliant 2002/95/EC

LEDdynamics, Inc.
802.728.4533 P
802.728.3800 F
sales@LUXdrive.com
www.LUXdrive.com

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Part Number Identification Table

Table 1
Product Selection

Part Number	Maximum Voltage Drop	Drive Current	Connection Type
4006-020	30V	20mA	2 Wires
4006-025	24V	25mA	2 Wires
4006-030	20V	30mA	2 Wires

* Output current rating in milliamperes (mA): 20, 25, 30 or special order factory custom rating

Absolute Maximum Ratings

Input Voltage (transient) . . . . . $50V_{DC}$
Output Voltage . . . . . V_{IN} - $2.6V_{DC}$
Reverse Voltage . . . . . $-1V_{DC}$
Power Dissipation 0.6W

Typical Characteristics

Output tolerance (within specified temp. range) . . . . . ±10%
Min input voltage for current regulation . . . . . $2.6V_{DC}$ + Vf LED
Min input voltage for device to conduct . . . . . $0.6V_{DC}$

Specifications

Output current, 4006-020 . . . . . 20mA[1]
Output current, 4006-025 . . . . . 25mA[1]
Output current, 4006-030 . . . . . 30mA[1]

Maximum Operating temperature (Tcase). . . . . -40-+100°C
Storage temperature . . . . . -40-+135°C

1 - Measured with single emitter; output current drops slightly with additional series junctions to limit maximum power dissipation.

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Application Figures

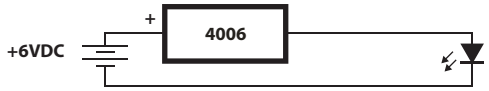

Figure 1.
25mA unit driving 1 5mm LED
(VIN ≥ 5VDC)

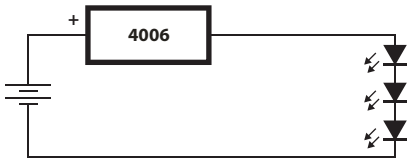

Figure 2.
25mA unit driving 3 5mm LED
(VIN ≥ 12VDC)

Physical Dimensions

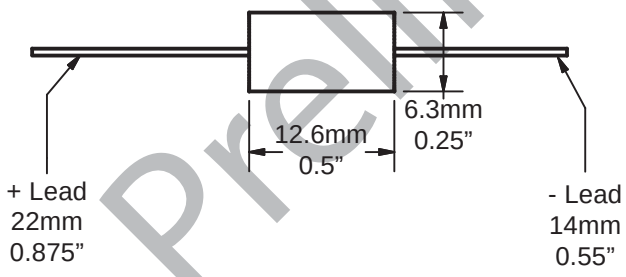

Figure 3
Top View - Typical Physical Dimensions

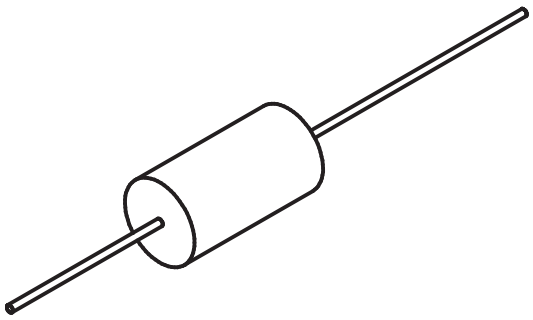

Figure 4
Side View

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