

Product Overview

CAT4201: LED Driver, 350 mA, Step-Down Converter

For complete documentation, see the data sheet.

The CAT4201 is a high efficiency step-down converter optimized to drive high current LEDs. A patented switching control algorithm allows highly efficient and accurate LED current regulation. A single RSET resistor sets the full scale LED string current up to 350 mA from supplies as high as 36 V. The switching architecture of the CAT4201 results in extremely low internal power dissipation allowing the device to be housed in a tiny package without the need for dedicated heat sinking. The device is compatible with switching frequencies of up to 1 MHz, making it ideal for applications requiring small footprint and low value external inductors. Analog dimming and LED shutdown control is provided via a single input pin, CTRL. Additional features include overload current protection and thermal shutdown.

Features

- Power Efficiency up to 94%
- LED Drive Current up to 350 mA
- Compatible with 12 V and 24 V Standard Systems
- Handles transients up to 40 V
- Single Pin Control and Dimming function
- Drives LED Strings of up to 32 V
- Open and Short LED Protection
- Parallel Configuration for Higher Output Current

Benefits

- Smaller, more efficient alternative to linear regulators for driving high-brightness LEDs in step-down applications.

Applications

- 12 V and 24 V Lighting Systems
- High Brightness 350 mA LEDs

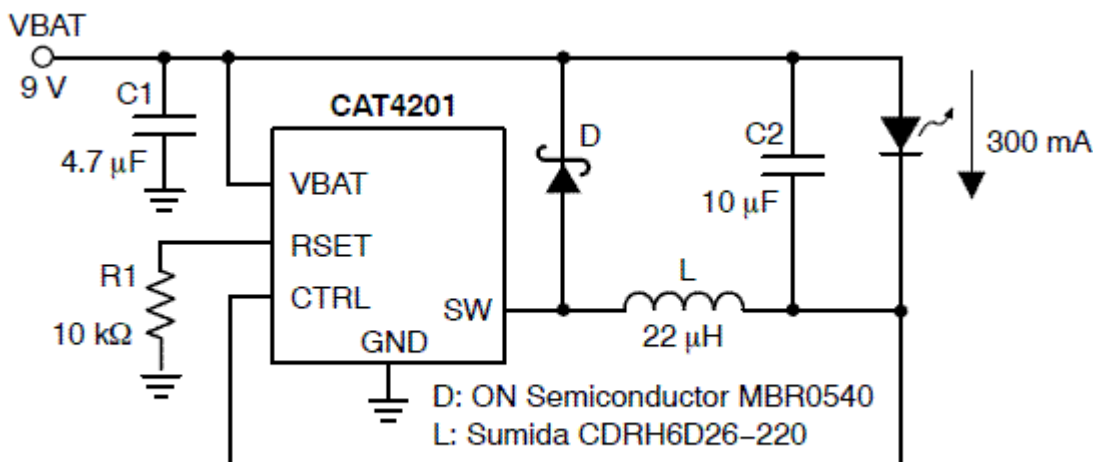
End Products

- Automobiles and Aircraft
- General Lighting

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Topology	V _{IN} Min (V)	V _{IN} Max (V)	V _O Max (V)	I _O Max (mA)	f _{sw} Typ (kHz)	Package Type
CAT4201TD-GT3	0.7333	Pb-free Halide free non AEC-Q and PPAP	Active	Step-Down	7	36	32	350	1000	TSOT-23-5

Application Diagram



See Table 4 on page 6 for external component selection.

For more information please contact your local sales support at www.onsemi.com.

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