DESCRIPTION
The MT7201 is a continuous mode inductive step-down converter, designed for driving single or multiple series connected LEDs efficiently from a voltage source higher than the LED voltage. The device operates from an input supply between 7~40V and provides an externally adjustable output current of up to 1A. Depending upon supply voltage and external components, this can provide up to 32 watts of output power.

The MT7201 includes the output switch and a high-side output current sensing circuit, which uses an external resistor to set the nominal average output current.

FEATURES
- Pass 4KV ESD test
- Simple low parts count
- 1A output current
- Single pin on/off and brightness control using DC voltage or PWM
- Internal PWM filter
- Soft-start
- High efficiency (up to 97%)
- Wide input voltage range: 7V to 40V
- Output shutdown
- Up to 1MHz switching frequency
- Inherent open-circuit LED protection
- Typical 2% output current accuracy

PIN CONFIGURATION
Output current can be adjusted above, or below the set value, by applying an external control signal to the 'ADJ' pin.

The ADJ pin will accept either a DC voltage or a PWM waveform. Depending upon the control frequency, this will provide either a continuous or a gated output current. The PWM filter components are contained within the chip.

The PWM filter provides a soft-start feature by controlling the rise of input/output current. The soft-start time can be increased using an external capacitor from the ADJ pin to ground. Applying a voltage of 0.2V or lower to the ADJ pin turns the output off and switches the device into a low current standby state.

The device is assembled in a SOT89-5 pin package.

APPLICATION
- Low voltage halogen replacement LEDs
- Automotive lighting
- Low voltage industrial lighting
- LED back-up lighting
- Illuminated signs

APPLICATION CIRCUIT
For detail products information and sample requests, please contact:

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