DESCRIPTION

MT7201C is a Buck, constant current LED driver IC which operates under continuous conduction mode (CCM). The chip can drive single or multiple series connected LEDs efficiently when the input voltage is higher than the LED voltage. The chip supports 6V~40V input voltage and achieves up to 1A externally adjustable output current.

MT7201C integrates power switch and a high-end output current sense circuit. The average output current can be set through external resistor.

The ADJ pin can receive the analog/PWM dimming signals. If the voltage of the ADJ pin is below 0.2V, the internal power switch will be shut down and then the system enters the standby state with ultra-low power dissipation.

MT7201C is designed with PWM filter circuit, which can realize soft-start function by controlling the rising edge of the current. Besides, the soft-start time can be extended by adding an external capacitor between ADJ pin and ground.

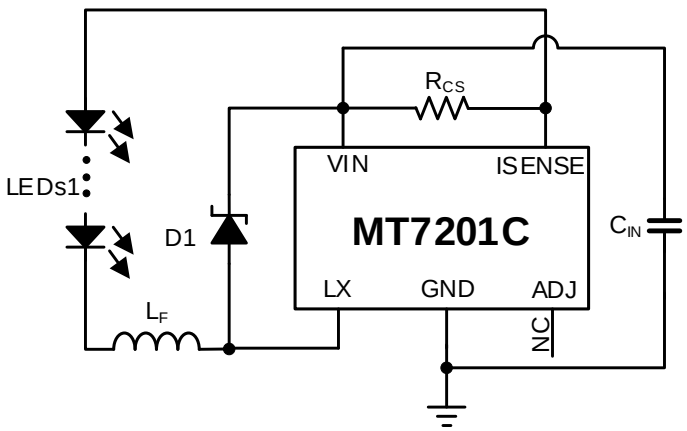
FEATURES

- Simple peripheral circuit with few components
- Constant output current: Up to 1A
- Single pin for ON/OFF, analog/PWM dimming
- Internal PWM filter
- Frequency jittering technique to reduce EMI
- High efficiency: up to 97%
- Wide input voltage range: 6V~40V
- Output shutdown
- Switching frequency: up to 1MHz
- Inherent open-circuit protection
- High accuracy output current: ±5%
- Available in SOT89-5 package

APPLICATION

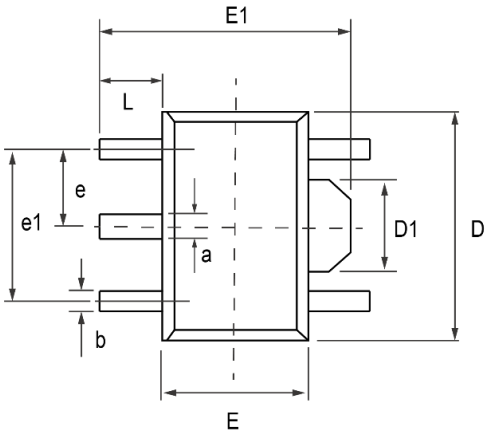
- Low voltage halogen replacement LEDs
- Automotive lighting
- Low voltage industrial lighting
- LED back-up lighting
- Illuminated signs
- Stage light

TYPICAL APPLICATION CIRCUIT

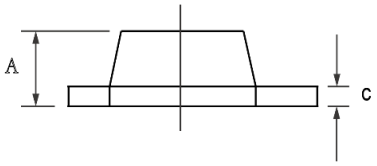


PACKAGE INFORMATION

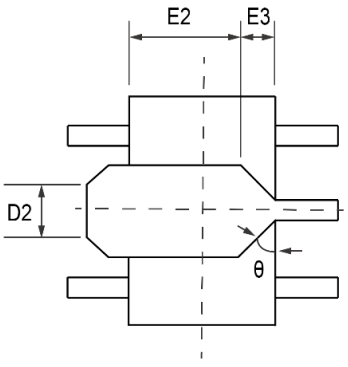
SOT89-5 PACKAGE OUTLINE AND DIMENSIONS



Top view



Side view



Bottom view

Symbol	Dimensions in millimeters	
	Min	Max
A	1.40	1.60
a	0.32	0.55
b	0.36	0.56
c	0.35	0.46
D	4.40	4.60
D1	1.40	1.80
D2	1.05	1.15
E	2.30	2.60
E1	3.94	4.30
E2	1.65	1.85
E3	0.65	0.75
e	1.50TYP	
e1	2.90	3.10
L	0.90	1.10
θ	45°	

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