



LM3405

550kHz/1.6MHz 1A Constant Current Buck Regulator for Powering LEDs

General Description

Integrated with a 1A power switch, the LM3405 is a current mode control switching buck regulator designed to provide a simple, high efficiency solution for driving LEDs. With a 0.2V reference voltage feedback control to minimize power dissipation, an external resistor sets the current as needed for driving various types of LEDs. Switching frequency is internally set to 550kHz (LM3405-Y) or 1.6MHz (LM3405-X), allowing small surface mount inductors and capacitors to be used. The LM3405 utilizes current mode control and internal compensation offering ease of use and predictable, high performance regulation over a wide range of operating conditions. Additional features include user accessible enable/dim pin for enabling and PWM dimming of LEDs, thermal shutdown, current limit and over voltage protection.

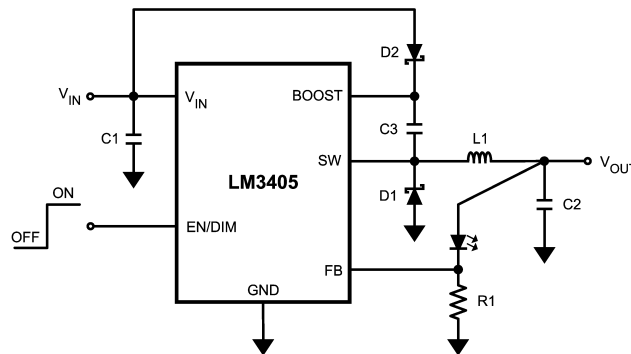
Features

- Thin SOT23-6 package
- 4.0V to 20V input voltage range
- 550kHz (LM3405Y) and 1.6MHz (LM3405X) switching frequencies
- 300mΩ NMOS switch
- 30nA shutdown current
- Enable/DIM input for enabling and PWM dimming of LEDs
- Requires only low value, ceramic capacitors
- Input voltage UVLO
- Internally compensated current mode control
- Thermal shutdown

Applications

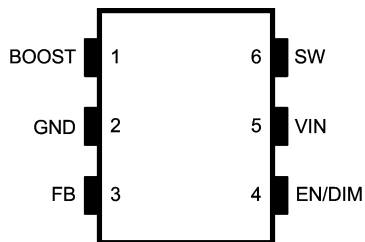
- LED Driver
- Constant Current Source

Typical Application Circuit



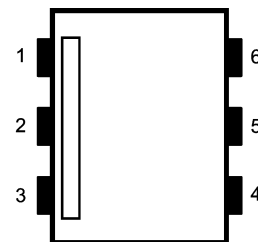
20178901

Connection Diagrams



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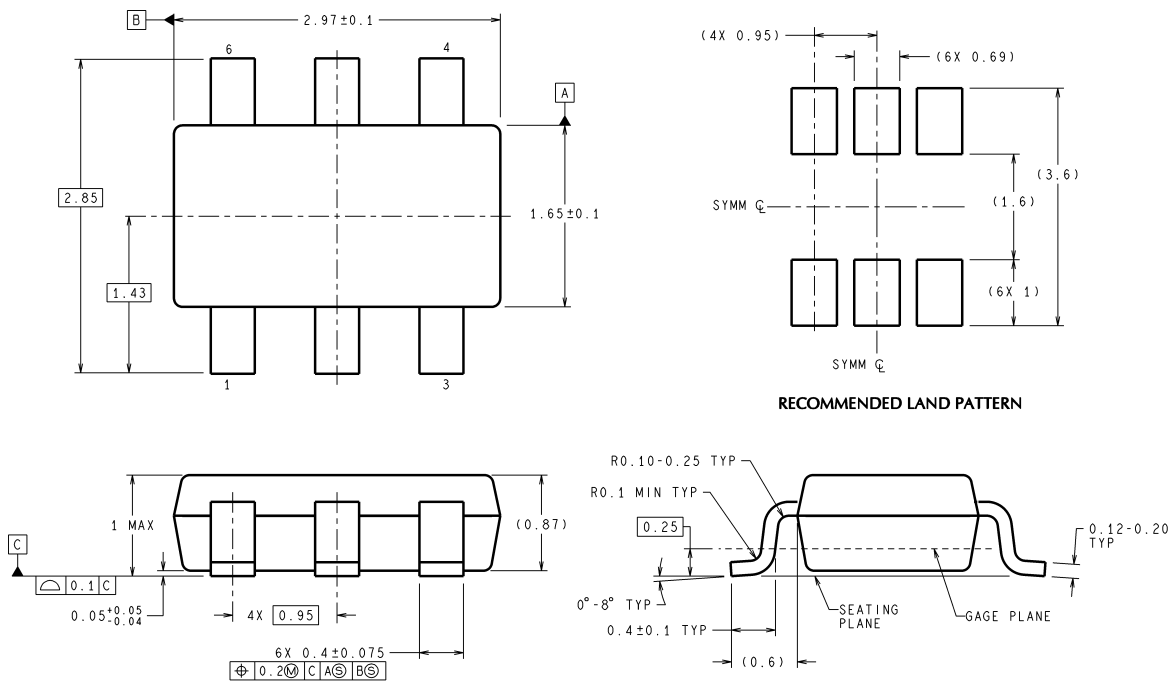
6-Lead TSOT
NS Package Number MK06A



20178960

Pin 1 Identification

Physical Dimensions inches (millimeters) unless otherwise noted



DIMENSIONS ARE IN MILLIMETERS
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MK06A (Rev D)

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