

# LM3404/04HV

## 1.0A Constant Current Buck Regulator for Driving High Power LEDs

### General Description

The LM3404/04HV are monolithic switching regulators designed to deliver constant currents to high power LEDs. Ideal for automotive, industrial, and general lighting applications, they contain a high-side NFET switch with a minimum over-temperature current limit of 1.2A for step-down (Buck) regulators. Hysteretic control with controlled on-time coupled with an external resistor allow the converter output voltage to adjust as needed to deliver constant current to series and series-parallel connected LED arrays of varying number and type. Output current dimming via PWM, broken/open LED protection, low-power shutdown and thermal shutdown complete the feature set.

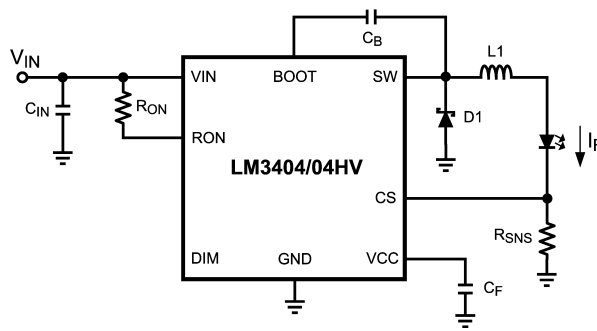
### Features

- Integrated 1.2A NFET
- $V_{IN}$  Range 6V to 42V (LM3404)
- $V_{IN}$  Range 6V to 75V (LM3404HV)
- 1.2A Output Current Over Temperature
- Cycle-by-Cycle Current Limit
- No Control Loop Compensation Required
- Separate PWM Dimming and Low Power Shutdown
- Supports all-ceramic output capacitors and capacitor-less outputs
- Thermal shutdown protection
- SO-8 Package

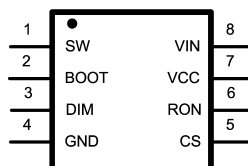
### Applications

- LED Driver
- Constant Current Source
- Automotive Lighting
- General Illumination
- Industrial Lighting

### Typical Application

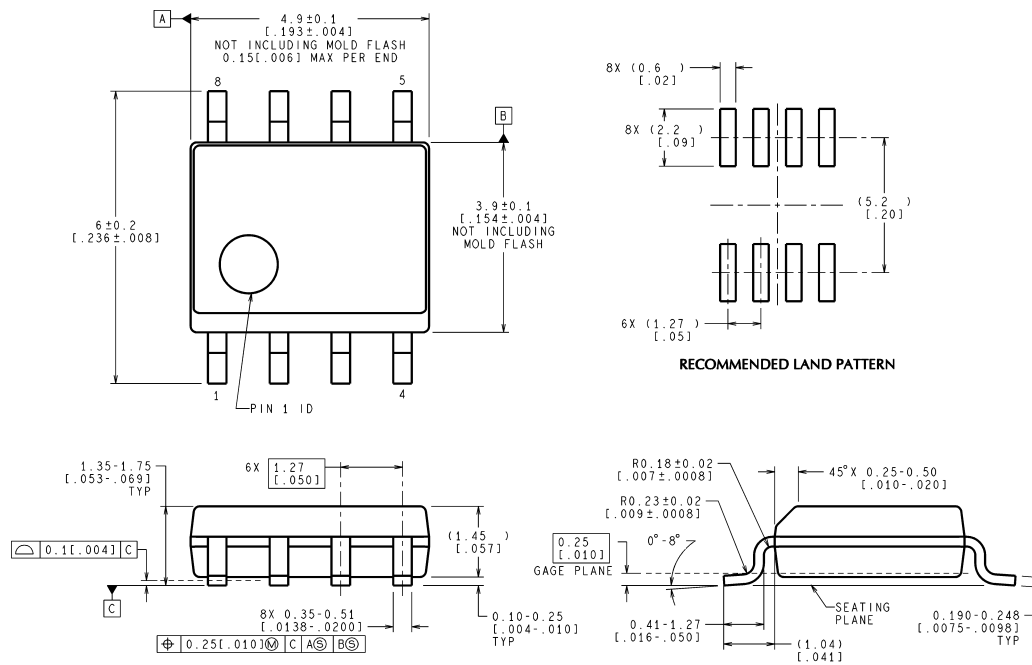


### Connection Diagram



8-Lead Plastic SO-8 Package  
NS Package Number M08A

## Physical Dimensions inches (millimeters) unless otherwise noted



CONTROLLING DIMENSION IS MILLIMETER  
VALUES IN [ ] ARE INCHES  
DIMENSIONS IN ( ) FOR REFERENCE ONLY

M08A (Rev L)

### SO-8 Package NS Package Number M08A

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