

DESCRIPTION

MT7604 is a high voltage linear constant-current LED driver. It's designed to drive LED string directly from 110VAC/220VAC mains.

MT7604 integrates 500V power MOSFET so that the peripheral circuit is simplified. It can easily pass EMI without inductor, transformer or other magnetic components, low BOM cost is achieved.

The whole driver system can be integrated into the LED lighting module, as an integrated lighting engine, which can be driven by AC line directly.

MT7604 can drive precision constant output current by option of an external resistor. The LED current setting range is 5mA~60mA. More than one MT7604 can be used in parallel when the LED current exceeds 60mA.

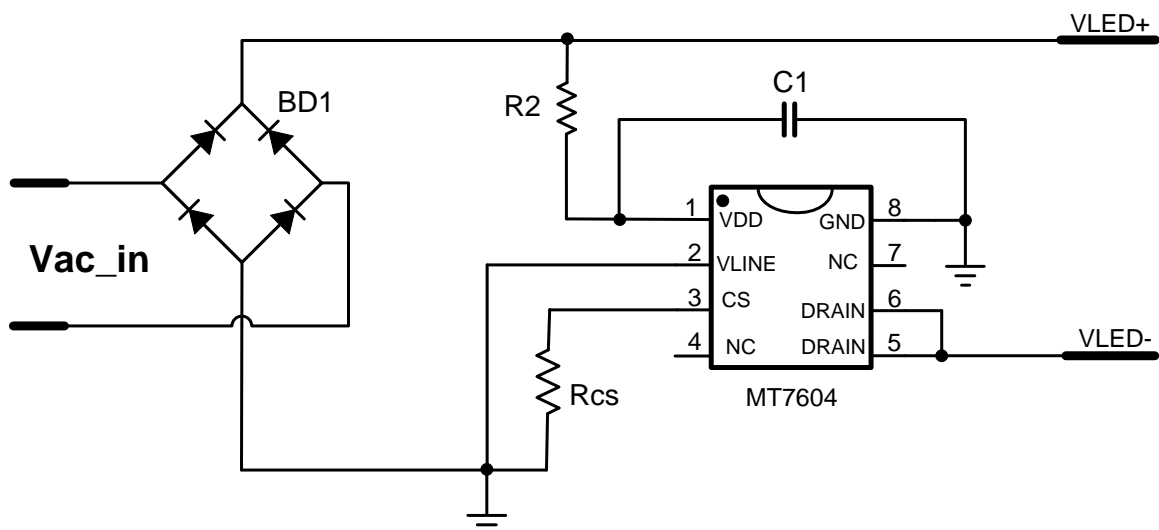
FEATURES

- High accurate constant current
- Internal 500V power MOSFET
- High integration, few external components
- Supports linear voltage compensation
- No E-caps and magnetic components
- Extended IC lifetime
- High power factor application
- Low EMI interference
- Available in SOP8 package

APPLICATION

- Alternative RC step-down LED lamp
- LED fluorescent, candle lamp
- LED bulb, decorative lamp
- Other compact LED lightings

Typical Application Circuit



ABSOLUTE MAXIMUM RATINGS

VDD pin voltage	-0.3V ~ 20V
CS, VLINE pin voltage	-0.3V ~ 6V
DRAIN pin voltage	-0.3V ~ 500V
Storage Temperature	-55°C~150°C
Junction Temperature (Tj)	150°C

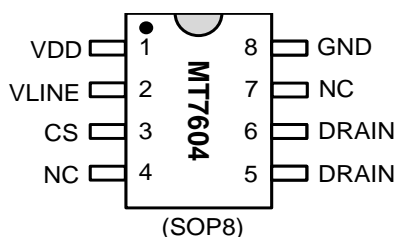
RECOMMENDED OPERATING CONDITIONS

Supply voltage VDD	15V
Operating Temperature	-40°C~105°C

THERMAL RESISTANCE

Junction to ambient (R θ JA)	128°C/W
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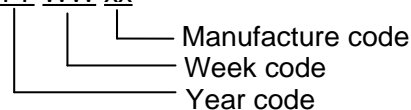
PIN CONFIGURATIONS



Chip Mark

MT7604

YY WW xx



Pin description

Name	Pin No	Description
VDD	1	Power supply pin
VLINE	2	Linear compensation pin. If this pin connects to ground directly, the linear voltage compensation is unavailable
CS	3	Current sense pin
NC	4	No connection
DRAIN	5,6	Drain of the internal MOSFET
NC	7	No connection
GND	8	Chip ground