

DESCRIPTION

MT7822 is a high precision LED constant current control chip operating at critical conduction mode (CRM) with zero current switched-on and peak current switched-off. It's mainly targeted for non-isolated buck LED power systems.

Critical conduction mode ensures that the MT7822 turns on the internal power MOSFET when the inductor current reaches zero, reducing the power MOSFET switching loss, and achieving more than 95% efficiency. With critical conduction mode, MT7822 outputs high accuracy LED current, and further achieves excellent line regulation and load regulation. It's insensitive to inductance and the I-shape inductor can be used.

MT7822 is intended for simplified peripheral circuits, low BOM cost application with an internal power MOSFET.

MT7822 has wide working voltage range, which is suitable for full-range AC input or 60V - 400V DC input voltage. MT7822 provides various protection features to enhance the system reliability, including over current protection (OCP), short circuit protection (SCP), and thermal adjustment, etc.

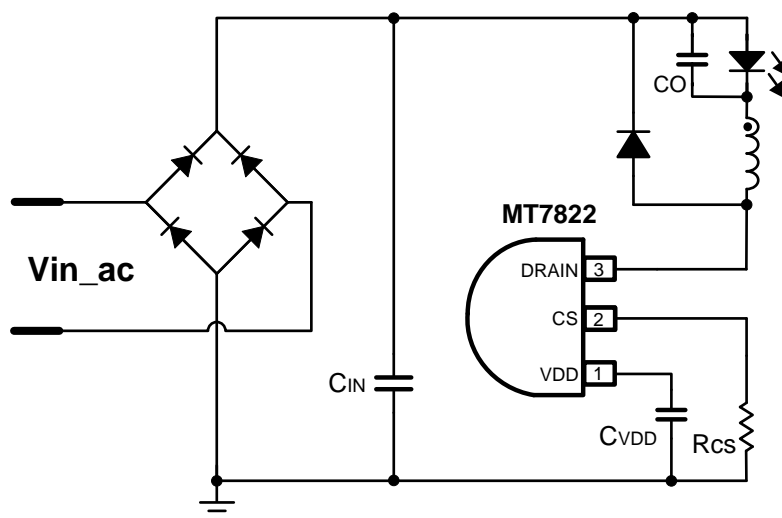
FEATURES

- Critical Conduction Mode, insensitive to the inductance.
- High efficiency (up to 95%)
- Highly accurate constant LED current
- Cycle-by-cycle current limitation
- LED Short Circuit Protection
- Leading edge blanking technique
- Under-voltage lockout (UVLO) protection
- Thermal adjustment
- Available in TO-92 package

APPLICATIONS

- LED bulb, LED tube, LED signal and landscape lamp
- LED stage light, LED candle light, LED corn light, etc.
- General purpose constant current source

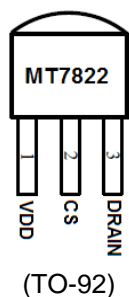
Typical Application Circuit



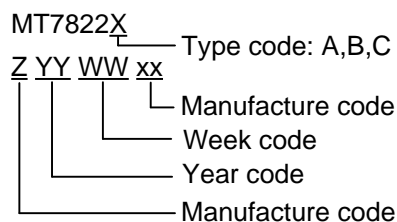
ORDERING INFORMATIONS

Device	R _{DS(on)}	Packing Method	Mark
MT7822AZ	30ohm	Shaped without tape 1,000pcs/bag	MT7822A ZYYWWxx
MT7822AT	30ohm	Shaped in tape 3,000pcs/box	MT7822A ZYYWWxx
MT7822BZ	18ohm	Shaped without tape 1,000pcs/bag	MT7822B ZYYWWxx
MT7822BT	18ohm	Shaped in tape 3,000pcs/box	MT7822B ZYYWWxx
MT7822CZ	12ohm	Shaped without tape 1,000pcs/bag	MT7822C ZYYWWxx
MT7822CT	12ohm	Shaped in tape 3,000pcs/box	MT7822C ZYYWWxx

PIN CONFIGURATIONS



Chip Mark



PIN DESCRIPTION

Name	Pin No.	Description
VDD	1	Power supply pin. Internal clamped at 7.2V
CS	2	Chip Ground and current sense pin
DRAIN	3	Drain of internal high-voltage power MOSFET