

DESCRIPTION

The MT79325 is a single-stage, primary side control AC-DC LED driver with active power factor correction. The MT79325 integrates on-chip PFC circuit operates in discontinuous conduction mode (DCM) to achieve high power factor and low harmonic distortion (THD). With MAXIC Proprietary control technique, precision LED current is achieved without secondary side sense and feedback circuit including opto-coupler.

Embedded with 700V power MOSFET, the peripheral circuit is simplified.

The MT79325 provides various protections, such as over current protection (OCP), over voltage protection (OVP), short circuit protection (SCP) and over temperature protection (OTP), etc, to improve system reliability.

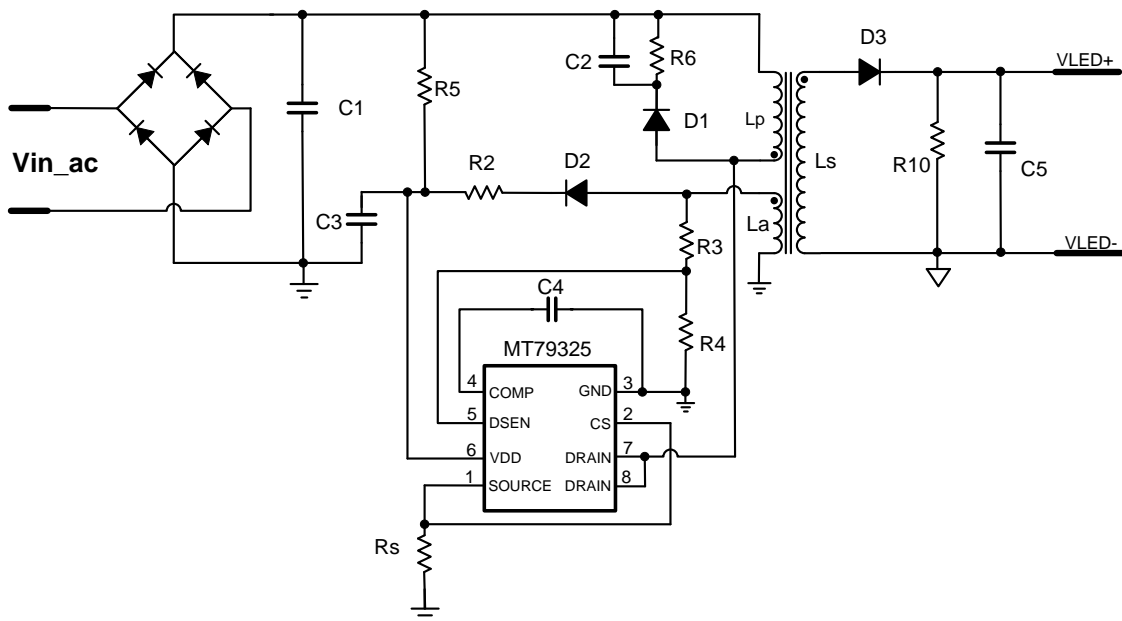
FEATURES

- Single-stage Active PFC for high power factor and low THD (<8%)
- Primary side control eliminates opto-coupler
- High precision LED current ($\pm 3\%$)
- Cycle-by-cycle current limiting
- Under-voltage lockout (UVLO) protection
- VDD and output over voltage protection
- Adjustable constant current and output power setting
- Power on soft-start
- Embedded with 700V power MOSFET
- Available in DIP8 package

APPLICATIONS

- AC/DC LED driver applications
- Signal and decorative LED lighting
- E27/PAR30/PAR38/GU10 LED lamp
- T8/T10 LED String

Typical Application Circuit



ABSOLUTE MAXIMUM RATINGS

VDD Voltage	-0.3V to VDD Clamp
DRAIN Pin Voltage	-0.3V to 700V
COMP/CS/DSEN Pins Voltage	-0.3V to 5V
Power Dissipation (TA=25°C)	1.5W
Lead Temperature (soldering, 10 sec.)	260°C
Storage Temperature	-55°C to 150°C
Junction Temperature Tj	150°C

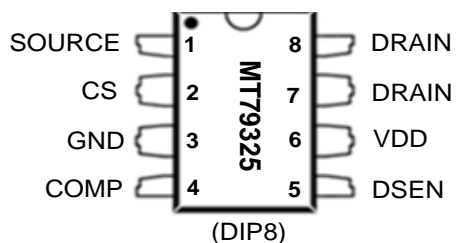
Recommended operating conditions

Supply voltage	7.2V to 22V
Operating Temperature	-40°C to 105°C

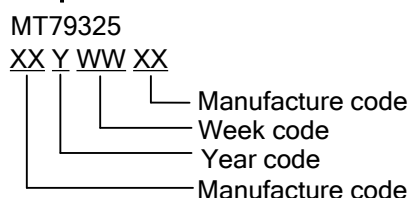
Thermal resistance

Junction to ambient (R _{θJA})	70°C/W
Junction to Case (R _{θJC})	47°C/W

PIN CONFIGURATIONS



Chip Mark



PIN DESCRIPTION

Name	Pin No.	Description
SOURCE	1	Source of the power MOS
CS	2	Current sense pin
GND	3	Ground
COMP	4	Internal EA's output. Connect a capacitor to ground for frequency compensation
DSEN	5	The voltage feedback from auxiliary winding. Connected to a resistor divider from auxiliary winding to sense output voltage
VDD	6	Power supply
DRAIN	7,8	Drain of the power MOS drain