

DIO8600B

Single Stage Flyback & PFC Regulator With Primary Side Control For LED Lighting

Features

- Primary side control eliminates the opto-coupler
- Internal 700V Power MOSFET
- Valley turn-on of the primary MOSFET to achieve lower switching losses
- Power factor $>0.95@230VAC$
- THD $<10%@230VAC$
- Reliable short LED and Open LED protection
- Quick start up: $<500ms$
- Low start up current: $15\mu A$ typical
- External thermal regulation
- Package: SOIC-8

Applications

- LED Lighting

Descriptions

The DIO8600B consists of an integrated single stage Flyback & PFC regulator and 700V power MOSFET, specifically designed for a high performance off-line converter with minimal external components targeting at LED lighting applications.

The DIO8600B drives the Flyback converter in the quasi-resonant mode to achieve higher efficiency. and keeps the Flyback converter in constant on time operation to achieve high power factor.

This chip adopts special design to achieve quick start up and reliable protection for safety requirement.

Block Diagram

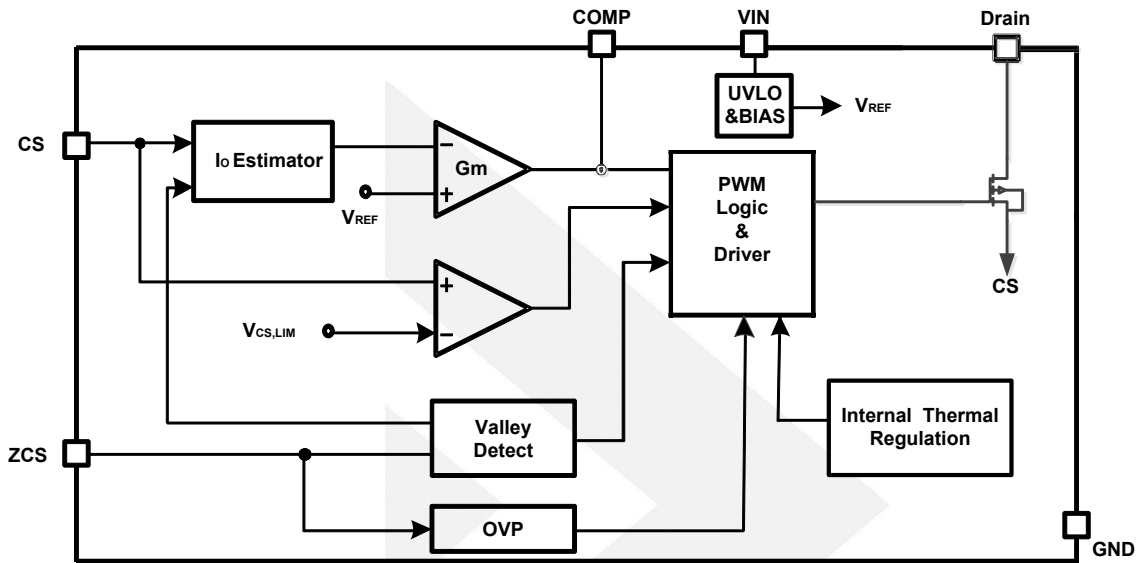


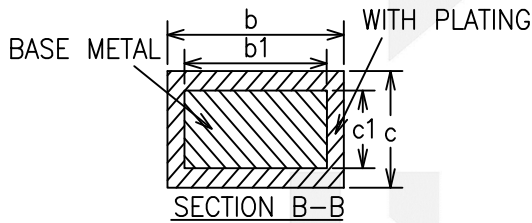
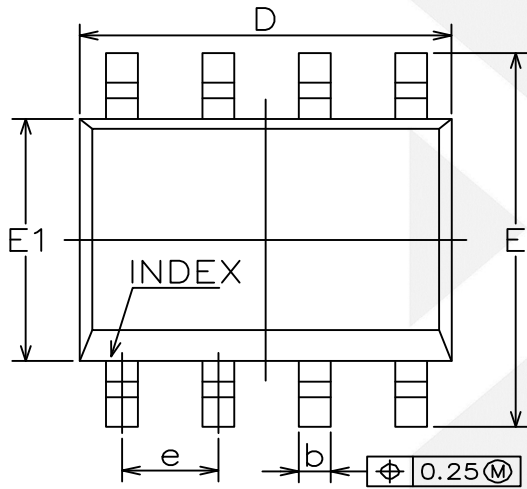
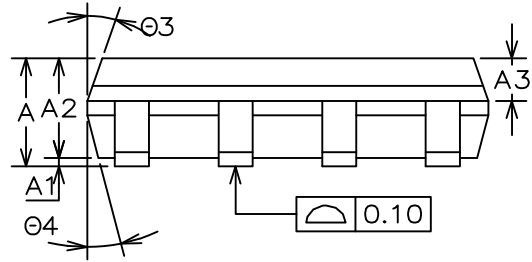
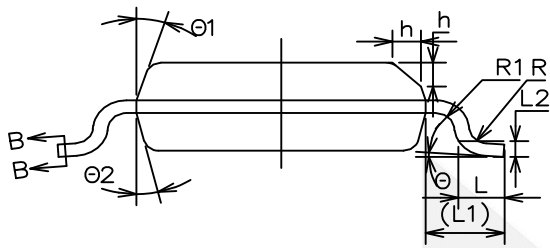
Figure1 Block Diagram

Ordering Information

Order Part Number	Top Marking		T _A	Package	
DIO8600BCS8	DIO8600B	Green	-40 to +85°C	SOIC-8	Tape & Reel, 2500



Physical Dimensions: SOIC-8



COMMON DIMENSIONS (UNITS OF MEASURE=MILLIMETER)			
Symbol	MIN	NOM	MAX
A	1.35	1.55	1.75
A1	0.10	0.15	0.25
A2	1.25	1.40	1.65
A3	0.50	0.60	0.70
b	0.38	-	0.51
b1	0.37	0.42	0.47
c	0.17	-	0.25
c1	0.17	0.20	0.23
D	4.80	4.90	5.00
E	5.80	6.00	6.20
E1	3.80	3.90	4.00
e	1.27BSC		
L	0.40	0.60	0.80
L1	1.04REF		
L2	0.25BSC		
R	0.07	-	-
R1	0.07	-	-
h	0.30	0.40	0.50
theta	0°	-	8°
theta1	15°	17°	19°
theta2	11°	13°	15°
theta3	15°	17°	19°
theta4	11°	13°	15°