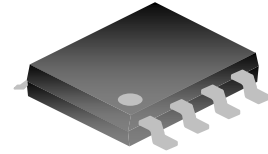


HIGH PRECISION CC/CV PRIMARY SIDE POWER SWITCH WITH INTEGRATED MOSFET

1. DESCRIPTION

SDH8594ES is a high performance off-line PSR power switch which operates in PFM to achieve high performance and high efficiency. It integrates a 650V MOSFET and high voltage startup to decrease physical volume. Both the output current and voltage are sensed by primary side signal process.

SDH8594ES removes the need for secondary feedback circuitry while achieving excellent line and load regulation. It also eliminates the need for loop compensation while maintaining stability over all operation conditions. SDH8594ES is suitable for the output power of 8~12W.



SOP-8-225-1.27

2. FEATURES

- ◆ Primary-side Feedback Eliminates Opto-isolators
- ◆ High Precision Constant Voltage and Current Regulation at Universal AC Input
- ◆ Ultra Low Start-up Current
- ◆ Programmable CV and CC Regulation
- ◆ Programmable Cable Drop Compensation
- ◆ Integrated 650V MOSFET
- ◆ Integrated High Voltage Startup
- ◆ Less Than 75mW Standby Power
- ◆ Built-in Line Voltage and Primary Winding Inductance Compensation
- ◆ Built in Leading Edge Blanking(LEB)
- ◆ No External Compensation Required
- ◆ On-chip OTP
- ◆ VCC Over Voltage Protection
- ◆ Output Over Voltage Protection
- ◆ VCC Under Voltage Lockout with Hysteresis(UVLO)
- ◆ Cycle-by-Cycle Current Limiting
- ◆ Output Short Circuit Protection
- ◆ Over Current Protection
- ◆ Maximum on time protection

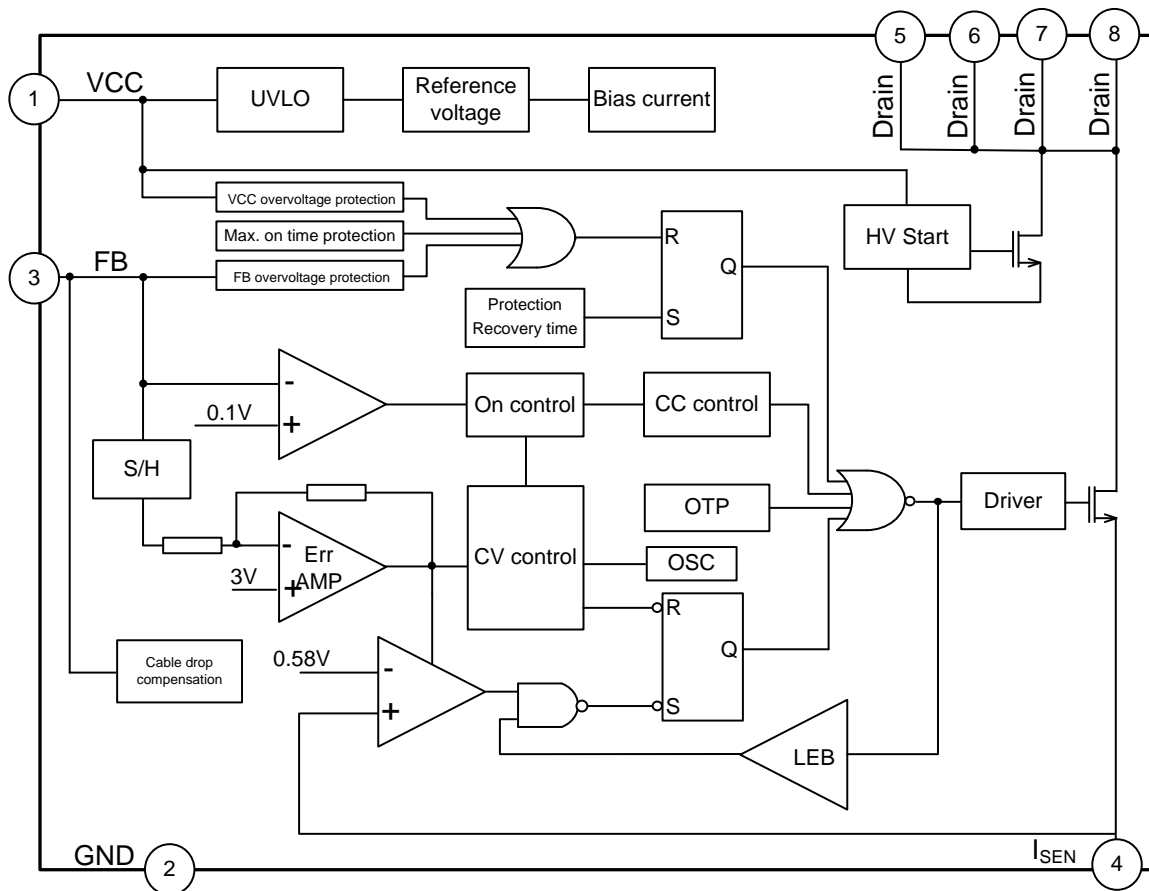
3. APPLICATIONS

- ◆ AC/DC adapters
- ◆ Battery Chargers

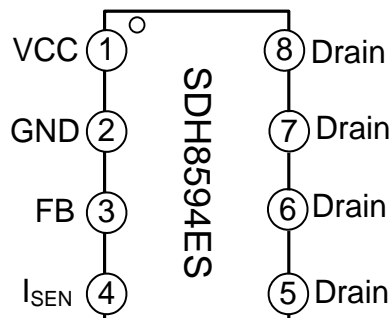
4. ORDERING INFORMATION

Part No.	Package	Marking	Hazardous Substance Control	Packing Type
SDH8594ES	SOP-8-225-1.27	SDH8594E	Halogen free	Tube
SDH8594ESTR	SOP-8-225-1.27	SDH8594E	Halogen free	Tape & Reel

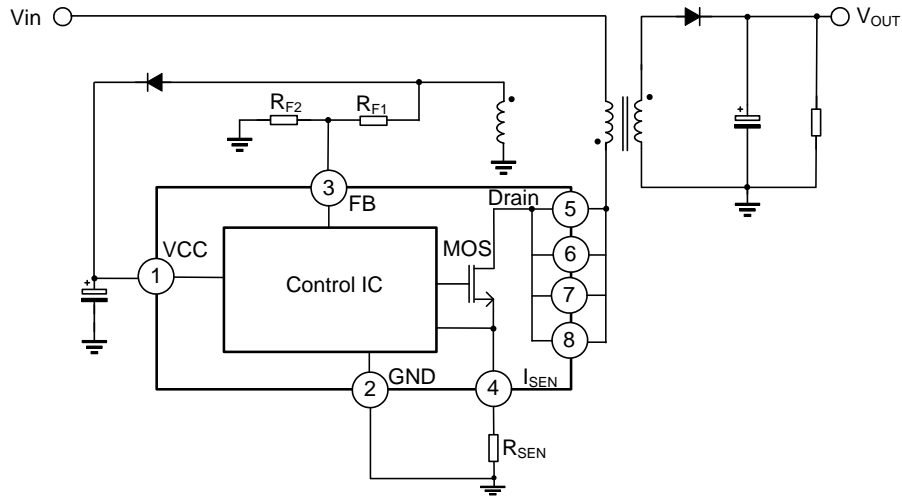
5. BLOCK DIAGRAM



6. PIN CONFIGURATION



7.TYPICAL APPLICATION CIRCUIT



8.PACKAGE OUTLINE

SOP-8-225-1.27 UNIT: mm

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	1.35	1.55	1.75
A1	0.05	0.15	0.25
A2	1.25	--	1.65
b	0.32	0.42	0.52
c	0.15	0.2	0.26
D	4.70	4.90	5.30
E	5.60	6.00	6.40
E1	3.60	3.90	4.20
e	1.27BSC		
L	0.30	—	1.27

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