

# Power Electronics FA5592 series

## PWM Power Supply IC with Low Standby Power

### ■ Features

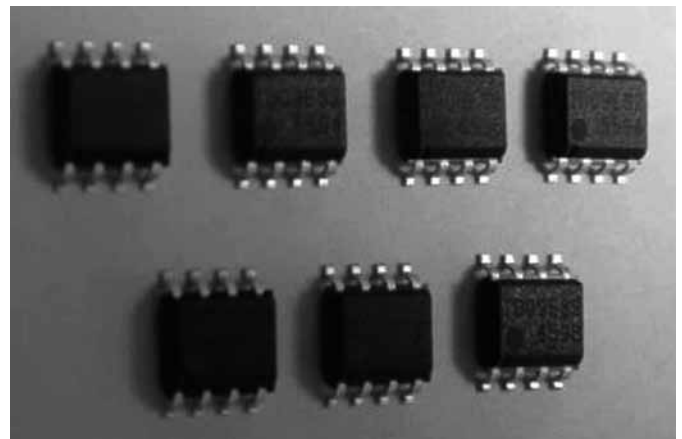
- Internal 750V high voltage startup current source
- Auto-reducing switching frequency at light load
- Low EMI noise by frequency modulation
- MOSFET current detection is negative-polarity mode
- Numerous kind of protect functions (ex. Brown-out under-voltage protection)

### ■ Applications

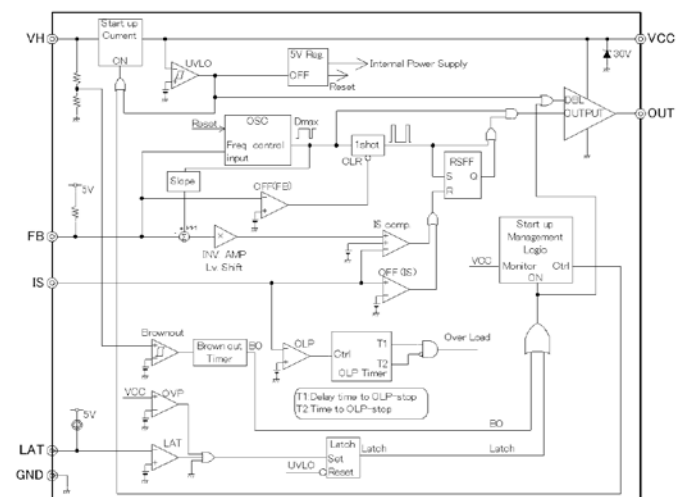
- Note PC /Printer Adapter
- LCD TV/Monitor SMPS

### ■ Specifications

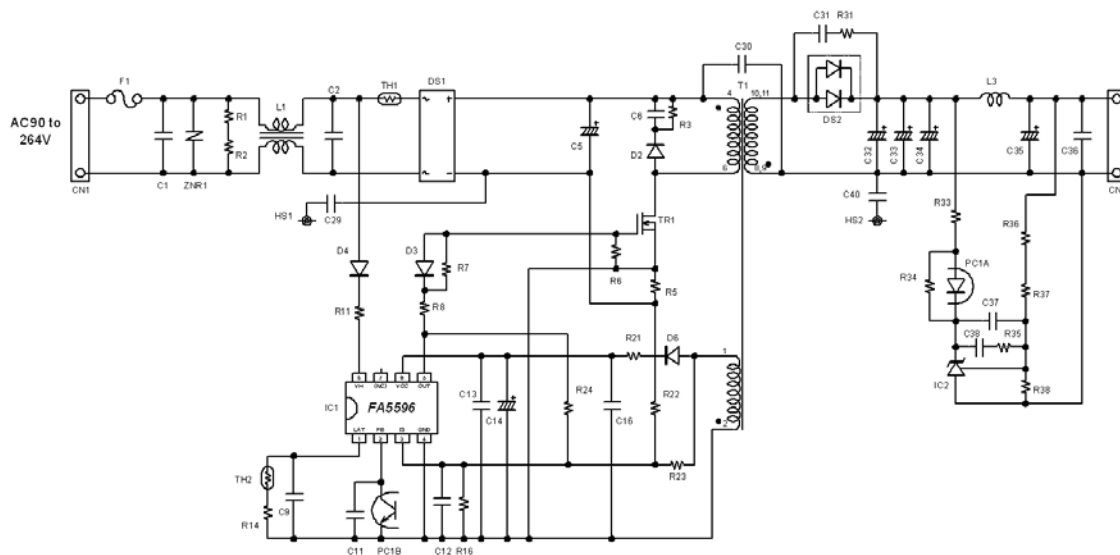
- Startup current source 7mA
- VCC voltage range 11 to 24V
- OUT pin peak current sink 1000mA, source -500mA
- IS current limiter  $0.5V \pm 10\%$ ,
- VCC over-voltage protection  $26V \pm 1V$  (latched)
- OLP timer auto-recovery switching on/off is 0.2/1.4 sec (OLP auto-recovery or latched)



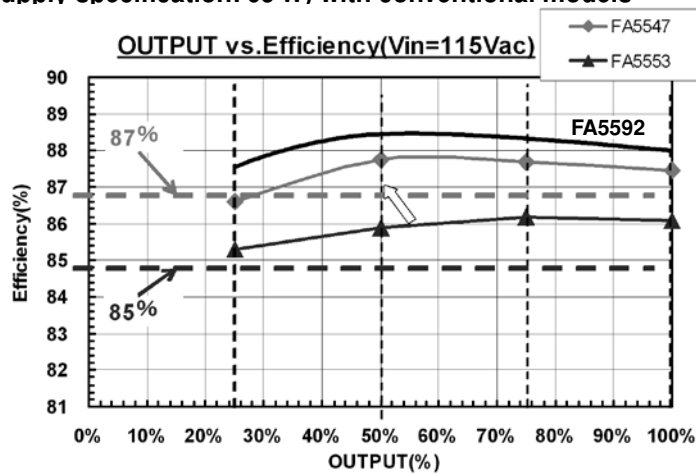
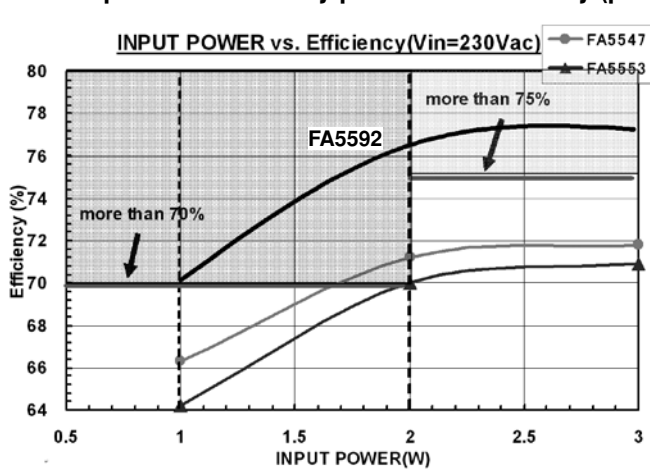
### ■ Circuit block



## Example of power supply configuration



## Comparison of standby power and efficiency (power supply specification: 65 W) with conventional models



## Comparison between FA5592 series and conventional models

Item	New model	Conventional models		Merits
	FA5592 series	FA5547 series	FA5553 series	
Switching frequency (fosc)	65kHz/100kHz	60kHz/100kHz	60kHz/100kHz	Miniaturization
Frequency variation	fosc±6.5%	—	—	EMI
Frequency reduction start FB voltage	1.7V	1.2V	1.2V	Efficiency
Brownout	Available	Available	—	Reduced parts count
Over-current detection level	-0.5V	-1V	-1V	Efficiency
Peak load support	Available	Available	—	Reduced parts count