

## AC/DC PWM Controller with Extremely Low Startup Current and Brownout Protection

Preliminary Specification Rev. P21

### FEATURES

- Extremely Low Startup Current (< 900nA)
- Current Mode Control
- Fixed 65KHz Switching Frequency
- OCP (Cycle-by-cycle Over Current Protection)
- OLP (Over Load Protection) with 80mS Delay
- OVP (Over Voltage Protection) through VCC Pin
- Embedded Soft Start
- Brownout Protection

### APPLICATIONS

- Switching AC/DC Adapter
- Switching Battery Charger
- Open Frame Power Supply

### GENERAL DESCRIPTION

With the proprietary low power technology, PF6003 start up with the current as low as only several hundred nano-Amps (nA). Therefore, the PF6003 startup resistor value can be very high to reduce the power dissipation and the requirement of 100mW no-load power consumption on AC/DC adapters can be easily achieved.

When the output loading is getting lower, the PF6003 switching frequency decreases from 65KHz to 20KHz gradually then further gets into burst mode operation for light load efficiency. In addition, all the required protections, including OLP, OVP, and Brownout control integrated in a tiny SOT-26 package, can be completely fulfilled with minimized external components.

### TYPICAL APPLICATION

