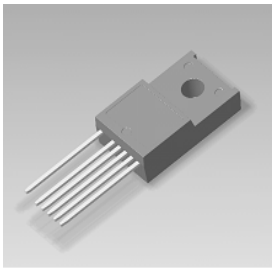
STR-W6200D Series

Power IC for PWM Type Switching Power Supply with Low Noise and Low Standby Power

■ General Descriptions

The STR-W6200D series products are power ICs for switching power supplies, incorporating a power MOSFET and a current-mode type PWM controller IC. The low standby power is accomplished by the automatic switching between the PWM operation in normal operation and the burst-oscillation under light load condition. The product achieves high cost-performance power supply systems with few external components.



TO-220F-6

■ Features

- Current-Mode Type PWM Control
- PWM with Jittering Function
  The function reduces the EMI noise and enables simplified (low-cost) EMI filters.
  The jittering period is adjustable by an external capacitor.
- Auto-Standby Function
  The burst-oscillation enables the low standby power.
  Input Power P_{IN} < 100mW at no load
- Built-in Startup Circuit, enabling low power consumption
- Overcurrent Protection (OCP) with Built-in Input Compensation Circuit
  The function has less AC input voltage dependency.
- Overload Protection (OLP) with Built-in Delay Timer (the delay time is adjustable by an external capacitor)
- External Latch Protection (ELP)
  The function enables the latch shutdown by external signal.
- Bias-Assist Function, reducing operating V_{CC} voltage drop
  The function improves the startup operation and makes a low V_{CC} capacitor applicable.
- Leading Edge Blanking Function
- Slope Compensation Function
- Built-in Avalanche Energy Guaranteed High-Voltage Power MOSFET
- Various Protections
  Overcurrent Protection (OCP)---------- Pulse-by-Pulse
  Overload Protection (OLP) ---------- Auto-Restart
  Overvoltage Protection (OVP) ---------- Latch Shutdown
  Thermal Shutdown Protection (TSD) ---------- Latch Shutdown

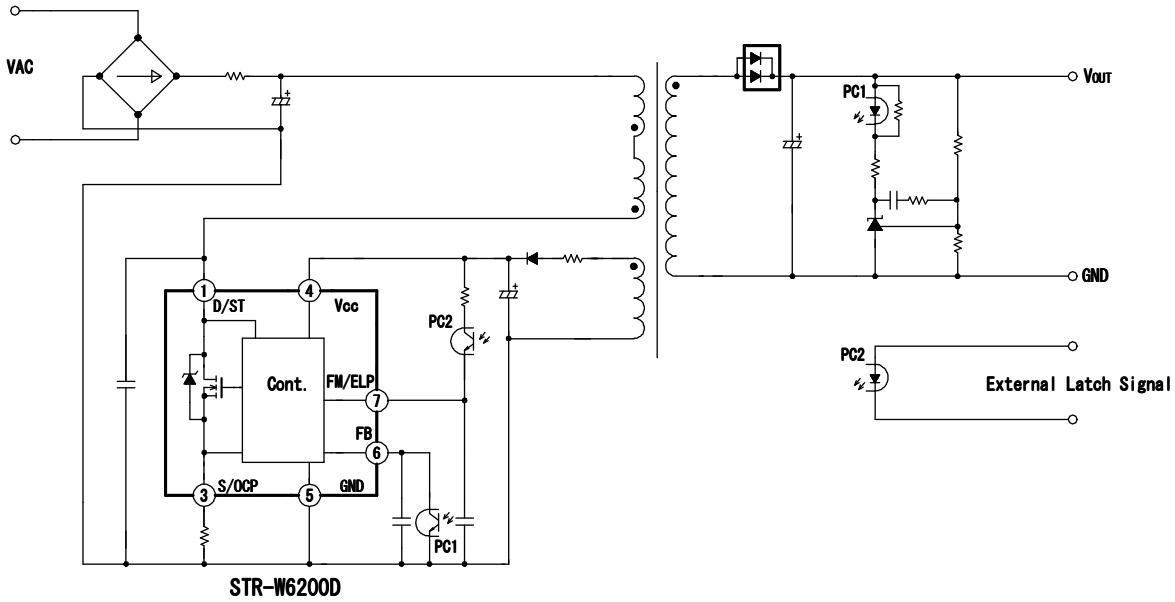
■ Applications

Switching Power Supplies for
Home Appliances (White Goods), Digital Consumer Equipment, OA Equipment, Industry Machines, Communication Devices, Others

■ Product Lineup

Product No.	f_{OSC} (kHz)	MOSFET V_{DSS} (MIN) (V)	$R_{DS(ON)}$ (MAX) (Ω)
STR-W6251D	67	650	3.95
STR-W6252D	67	650	2.8
STR-W6253D	67	650	1.9

■ Typical Application Circuit

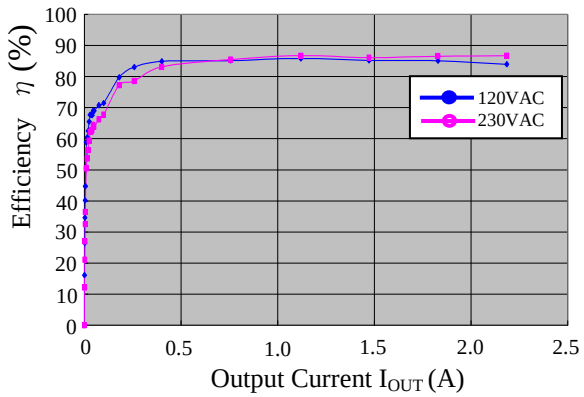


■ Typical Electrical Characteristics

STR-W6251D Power Supply Characteristics

Input: 85 - 264VAC, P_{OUT}: 10W (5V/2A)

Efficiency η – Output Current I_{OUT}



Input Power P_{IN} – Output Power P_{OUT}