THE DATASHEET OF

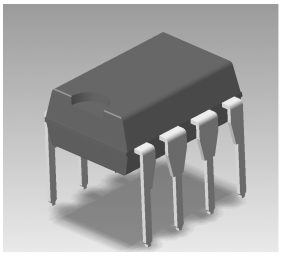
STR-A6063HD

STR-A6000 Series

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

■ General Descriptions

The STR-A6000 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 conditions. The product achieves high cost-performance power supply systems with few external components.



DIP-8

■ Features

- Current-Mode Type PWM Control
- Built-in Random Switching Function
  The function reduces the EMI noise and enables a simplified (low-cost) EMI filter, by the slight- random-change of PMW frequency f_{OSC}.
- Auto-Standby Function: The burst-oscillation enables the low standby power. Input Power P_{IN} < 25mW at no load
- Built-in Startup Circuit, enabling low power consumption
- Brown-In / Brown-Out Function
  The function enables the oscillation start/stop by externally rated input voltage and makes protections at low input voltage.
- Overcurrent Protection (OCP) with Built-in Input Compensation Circuit:
  The protection has less AC input voltage dependency.
- Overload Protection (OLP) with Built-in Delay Timer
- High Speed Latch Release Function
  The function releases the latch immediately at AC supply OFF, after the latch protection operation.
- 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
- Protections
  Overcurrent Protection (OCP)---------- Pulse-by-Pulse
  Overload Protection (OLP) ---------- Auto-Restart
  Overvoltage Protection (OVP) ---------- Latch Shutdown
  Thermal Shutdown Protection (TSD) ---------- Latch Shutdown

■ Applications

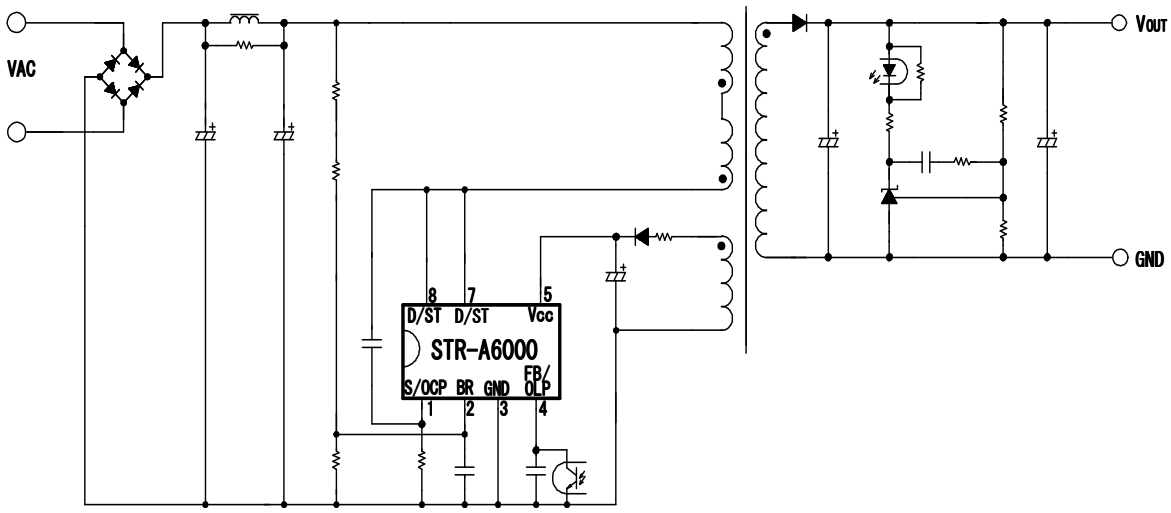
- Battery Chargers; Mobile Phones, Digital Cameras, Camcorders, Electric Shavers, Emergency/Inducement Lights etc.
- Standby Power Supplies; LCD-TVs, PDP-TVs, Desk-Top PCs, LBPs, Audio Equipment, etc.
- Small SMPSs; Ink Jet Printers, BD/DVD Players, CD Players, Set-Top-Boxes, etc.
- Auxiliary Power Supplies for Controllers; Air Conditioners, Refrigerators, Washing Machines, Dish Washers, etc

■ Product Lineup

Product No	Operation Frequency (kHz)	MOSFET V_{DSS} MIN (V)	$R_{DS(ON)}$ MAX (Ω)	P_{OUT} (Note 1) 230VAC/Universal
STR-A6051M	67	650	3.95	16W / 12W
STR-A6052M			2.8	20W / 16W
STR-A6053M			1.9	24W / 20W
STR-A6059H	100		6.0	10W / 8W
STR-A6061H		700	3.95	13W/11W
STR-A6061HD			3.95	13W/11W
STR-A6062H			2.8	15W / 13W
STR-A6069H			6.0	10W / 8W
STR-A6079M	67	800	19.2	8W / 5W

Note 1: The maximum output power is derived from thermal specifications. The actual output power may be available around 120 –140% of the above values, respectively, but may be limited by ON duty setting on transformer design or lower output voltage.

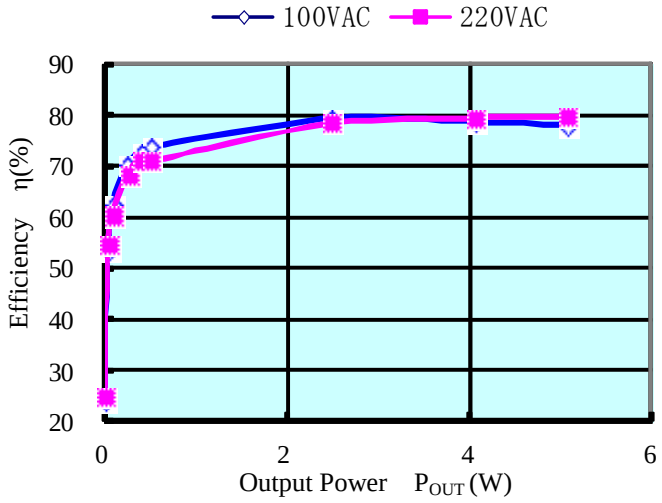
■ Typical Application Circuit



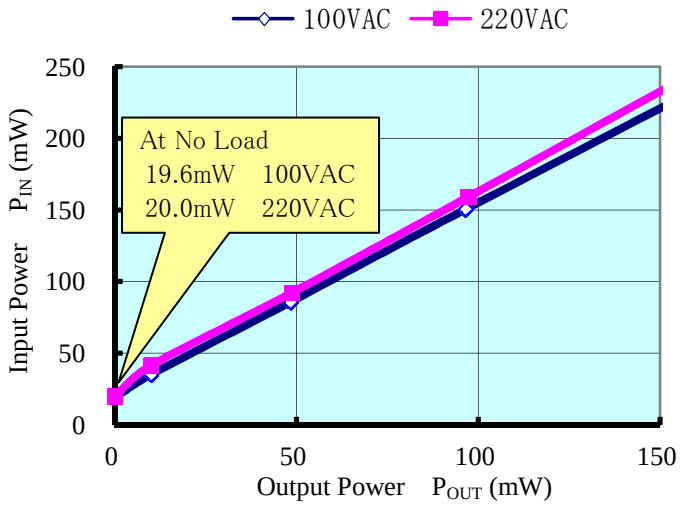
■ Typical Electrical Characteristics

STR-A6079M Efficiency & Input Power at Standby

Efficiency η－ Output Power P_{OUT}



Standby Power (P_{OUT}: 5W Power Supply)



Without Brown-IN/Brown-OUT Detection Resistor

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