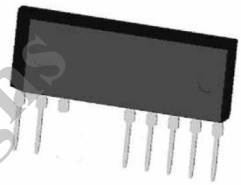
STR-L6400 Series

Power IC for Quasi-Resonant Type Switching Power Supply with High Efficiency, Low Noise and Low Standby Power in Full Load Range Low-Height and Enough Creepage Isolation (>6mm) between High and Low Voltage Terminals

■ General Descriptions

The STR-L6400 series products are power ICs for quasi-resonant switching type power supplies, incorporating a power MOSFET and a controller IC. The product achieves high efficiency and low noise power supply systems across the full load range, by the low standby power, the quasi-resonant operation, the bottom-skip quasi-resonant operation, and the burst-oscillation. The product is recommended for the systems requiring low-height and enough clearance and creepage isolation between high and low voltage terminals.
The STR-Y6400 series products are the different package (TO-220F) versions.



SIP10L

■ Features

- Multi-Mode Control
  The operation mode switching with four steps according to load conditions achieves the optimal high efficiency and low noise power supply systems across the full load range.
  - ・In Standby: Auto Standby (Auto Burst-Oscillation)
  - ・Under Low to Middle Load Conditions: 1 or 2 Bottom-Skip Quasi-Resonant Operation (Bottom-Skip QR)
  - ・Under Middle to Rating (or Heavy) Load Conditions: Quasi-Resonant Operation (QR)
- Current-Mode Control
- Bottom-Skip Function with Delay Time Setting, enabling stable switching
- Built-in Startup Circuit, enabling low power consumption
- Auto-Standby Function with Burst-Oscillation, enabling low standby power(Input power P_{IN} < 100mW at no load)
- Soft-ON Function, preventing the audible noise from transformer, during the standby operation (burst-oscillation) and the dynamic load change.
- SIP10L Package (Sanken designation : STA10L), recommended for auxiliary power supplies of White Goods
  Straight lead pitch: 2.54mm, Height over PCB: < 12mm
  Clearance and Creepage Isolation between high and low voltage terminals: 6.5mm (3 pins removed)
- Soft-Start Function
- Step-Drive Function, reducing switching noise
- Leading Edge Blanking Function
- External ON/OFF Function
- Built-in Avalanche Energy Guaranteed High-Voltage Power MOSFET
- Various Protections
  Overcurrent Protection (OCP)-------- Pulse-by-Pulse with AC Input Compensation Function
  Overload Protection (OLP) ---------- Latch Shutdown or Auto-Restart Option by changing external components
  Overvoltage Protection (OVP) ------- Latch Shutdown

■ Applications

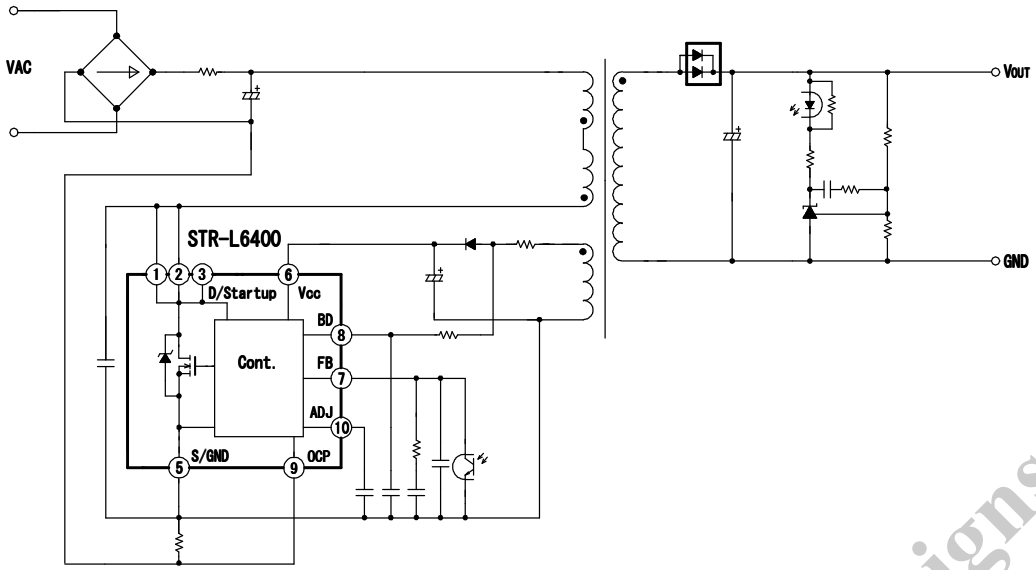
Switching Power Supplies for
Home Appliances (White Goods), Digital Consumer Equipment, OA Equipment, Industry Machines, Communication Devices, Others

■ Product Lineup

Product No	MOSFET V_{DSS} MIN (V)	$R_{DS(ON)}$ MAX (Ω)	P_{OUT} (Note 1,2) 100V / 220V
STR-L6472	850	6.5	15W / 25W

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.
Note 2: The condition of the maximum output power is “without heat sink”.

■ Typical Application Circuit



■ Package Information

SIP10L（Sanken designation : STA10L）