

# 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.



SIP10L

The STR-Y6400 series products are the different package (TO-220F) versions.

#### **■** 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
- $\bullet$  Auto-Standby Function with Burst-Oscillation, enabling low standby power(Input power  $P_{IN} < 100$ mW 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

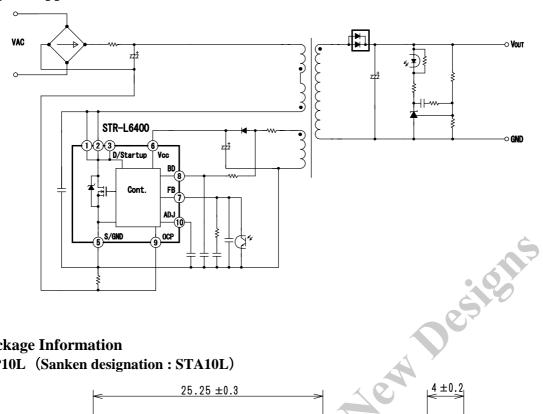
#### **■** Product Lineup

Product No	MOSFET V <sub>DSS</sub> MIN (V)	$\begin{array}{c} R_{DS(ON)} \\ MAX \ (\Omega) \end{array}$	P <sub>OUT</sub> (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.

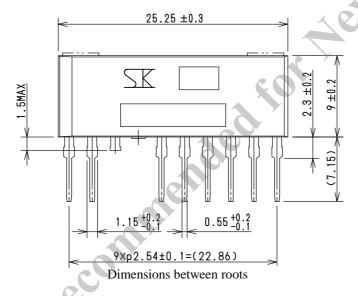
Note 2: The condition of the maximum output power is "without heat sink".

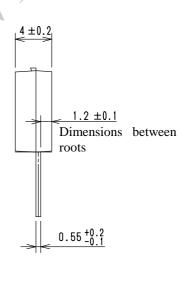
### **■** Typical Application Circuit

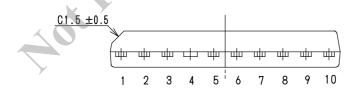


#### **■** Package Information

SIP10L (Sanken designation: STA10L)







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