

# STR-L6400 Series

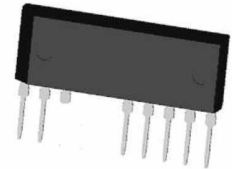
## Power IC for Quasi-Resonant Type Switching Power Supply with High Efficiency, Low Noise and Low Standby Power in Full Load Range

### 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.



SIP-10

#### ■ 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  $P_{IN} < 100\text{mW}$  at no load)

- Soft-ON Function, preventing the audible noise from transformer, during the standby operation (burst-oscillation) and the dynamic load change.

- SIP-10 Package (Sanken designation : STA-10L), 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

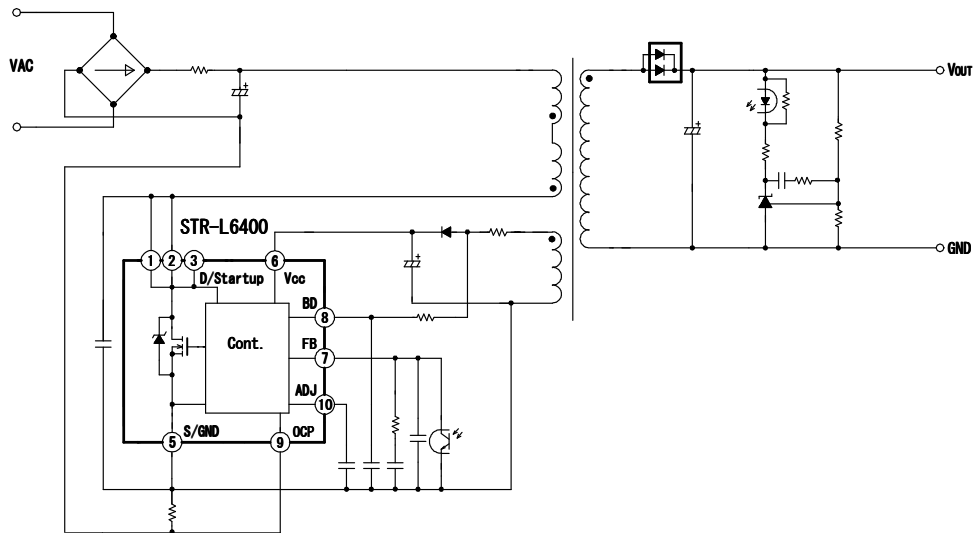
#### ■ Product Lineup

Product No	MOSFET $V_{DSS}$ MIN (V)	$R_{DS(ON)}$ MAX ( $\Omega$ )	$P_{OUT}$ (Note 1,2) 100V / 220V
STR-L6452	650	3.4	22W / 30W
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.

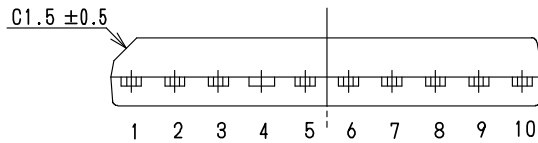
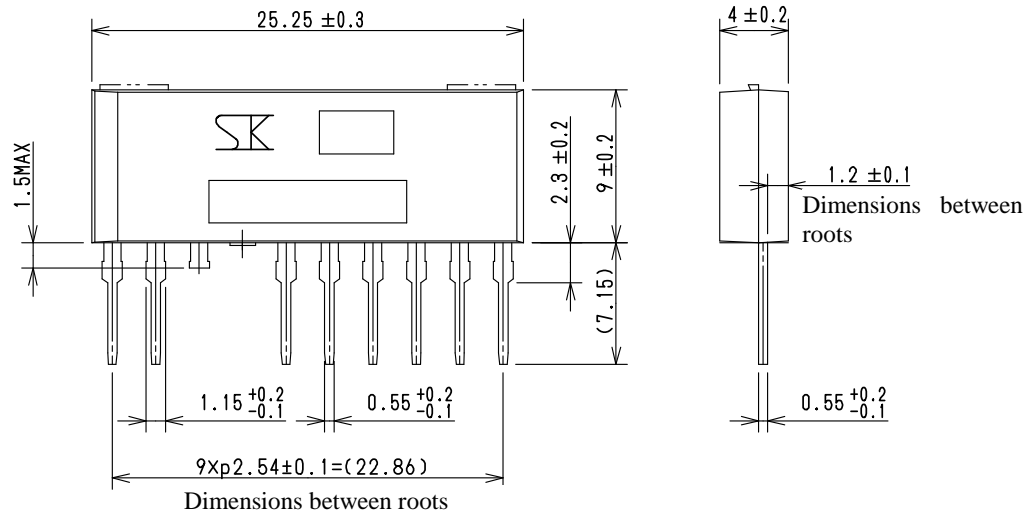
Note 2: The condition of the maximum output power is “without heat sink”.

## ■ Typical Application Circuit



## ■ Package Information

SIP-10 (Sanken designation : STA-10L)



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