

SSC9510 Series

Controller IC for Current Resonant Type Switching Power Supply with Half-Bridge Resonance, High Efficiency and Low Noise

■ General Descriptions

The SSC9510 series products are controller ICs, incorporating a floating drive circuit for half-bridge type resonance. The product achieves high efficiency and low noise power supply systems by the ZVS and ZCS. The product is recommended for high-efficiency small and standardized power supplies because of easy circuit designs with few external components.



DIP-16

■ Features

- Soft-Switched Multi-Resonant Zero Current Switch (SMZ)

The zero-current switching (ZSC) and zero-voltage switching (ZVS) of half-bridge type resonance achieve the high efficiency and low noise systems.

- Automatic Dead Time Adjustment Function for Wide Resonant Conditions

- Burst-Oscillation Function

The function enables the stable output control at no load to light load conditions and improves the efficiency.

- Soft-Start Function

- Brown-In / Brown-Out Function

The function enables the oscillation start /stop by externally rated input voltage and makes protections at low input voltage.

- External Latch Protection (ELP)

The function enables the latch shutdown by external signal.

- Various Protections

Overcurrent Protection (OCP)----- Auto-Restart

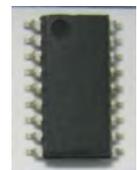
Three-step protections depending on overcurrent status

Overload Protection (OLP) ----- Latch Shutdown

Overvoltage Protection (OVP) ----- Latch Shutdown

External Latch Protection (ELP) ----- Latch Shutdown

Thermal Shutdown Protection (TSD) ----- Latch Shutdown



SOP-18

■ Applications

Switching Power Supplies for

Digital Consumer Equipment; LCD-TVs, PDP-TVs, etc.,

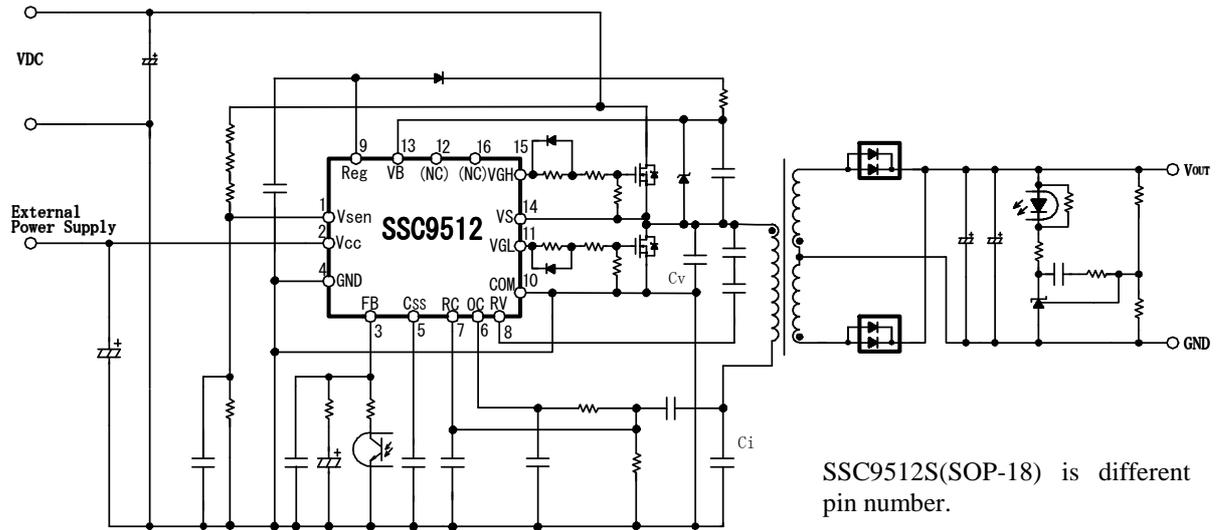
OA Equipment; Servers, Multi-Function Printers, etc.,

Industry Machines, Communication Devices, Others

■ Product Lineup

Product No	Package
SSC9512	DIP-16
SSC9512S	SOP-18

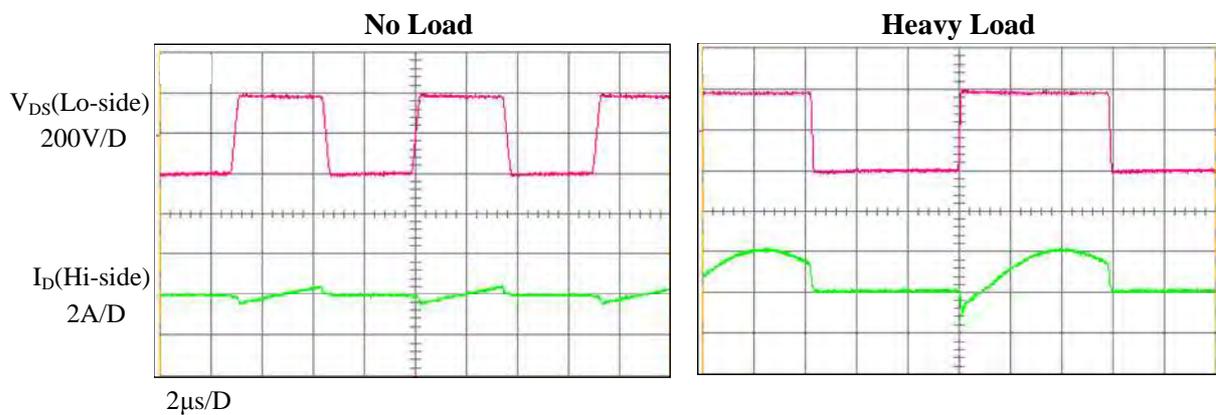
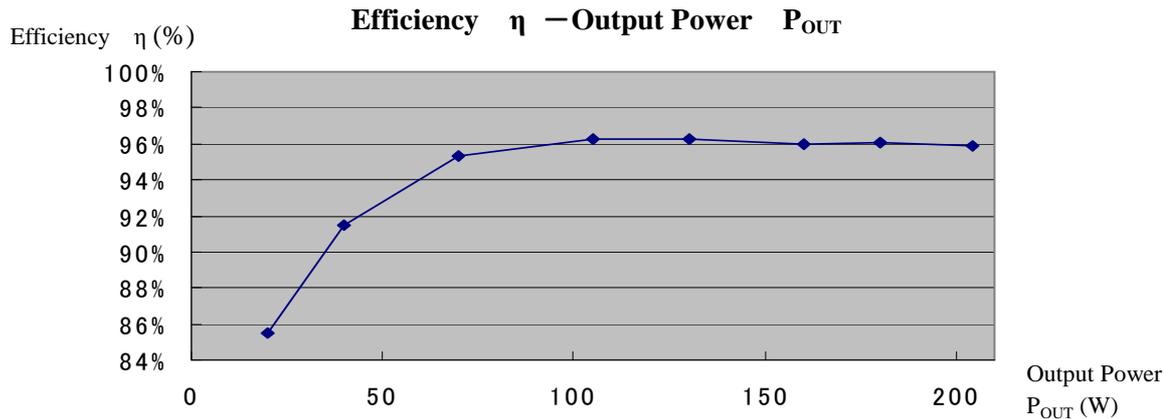
■ Typical Application Circuit



■ Typical Electrical Characteristics and Operation Waveforms

Power Supply Characteristics

Input : 380VDC, Output : 24V/8.5A (204W), with Power MOSFET $R_{DS(ON)}$: 0.56 Ω



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