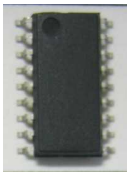
SSC9512 Series

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

■ General Descriptions

The SSC9512 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



SOP-18

■ 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

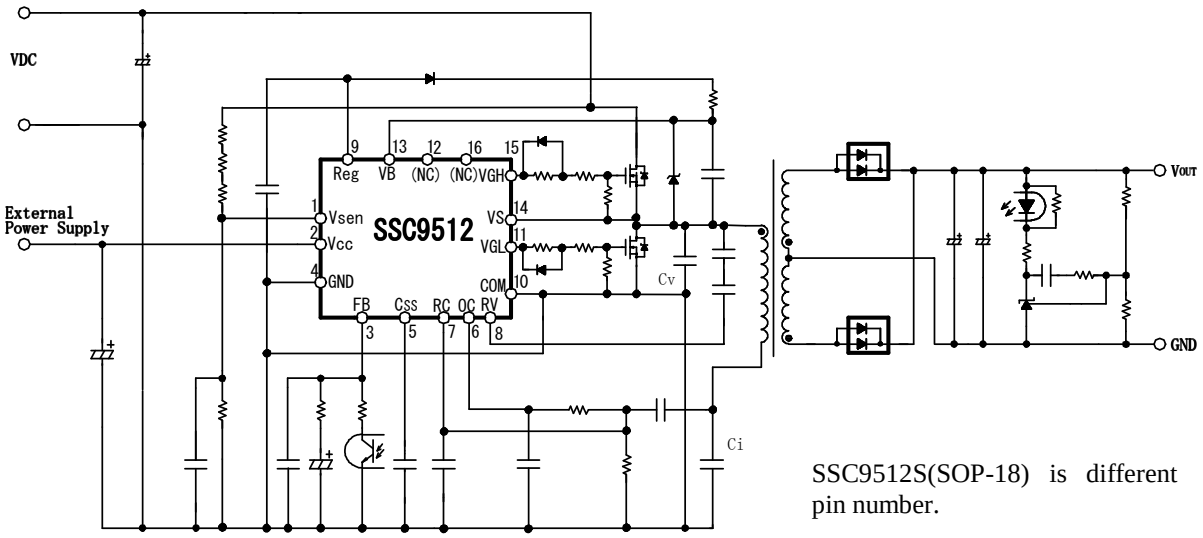
■ Applications

Switching Power Supplies for
Digital Consumer Equipment; LCD-TVs, PDP-TVs, etc.,
OA Equipment; Severs, Multi-Function Printers, etc.,
Industry Machines, Communication Devices, Others

■ Product Lineup

Product No	Package
SSC9512	DIP-16
SSC9512S	SOP-18

■ Typical Application Circuit



SSC9512S(SOP-18) is different pin number.

■ Typical Electrical Characteristics and Operation Waveforms

Power Supply Characteristics

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

Efficiency η －Output Power P_{OUT}