AC/DC SWITCHING REGULATOR WITH INTEGRATED 900 V MOSFET – HF900

The **HF900** is a flyback regulator with an integrated 900 V MOSFET. Requiring a minimum number of external components, the HF900 provides excellent power regulation in AC/DC applications that require high reliability. These applications include smart meters, large appliances, industrial controls, and products powered by unstable AC grids.

The regulator uses peak-current-mode control to provide excellent transient response and easy loop compensation. When the output power falls below a given level, the regulator enters burst mode to lower the standby power consumption.

The MPS proprietary 900 V monolithic process enables over-temperature protection (OTP) on the same silicon of the 900 V power FET, offering precise thermal protection. Also, it offers a full suite of protection features such as VCC undervoltage lockout, over-load protection, overvoltage protection, and short-circuit protection.

The HF900 is designed to minimize electromagnetic interference for wireless communication in home and building automation applications. The operating frequency is programmed externally with a single resistor, so the power supply's radiated energy can be designed to avoid the interference with wireless communication.

In addition to the programmable frequency, the HF900 employs a frequency jittering function that not only greatly reduces the noise level but also reduces the cost of the EMI filter.

The HF900 is available in SOIC14-11 and PDIP8-7EP packages.

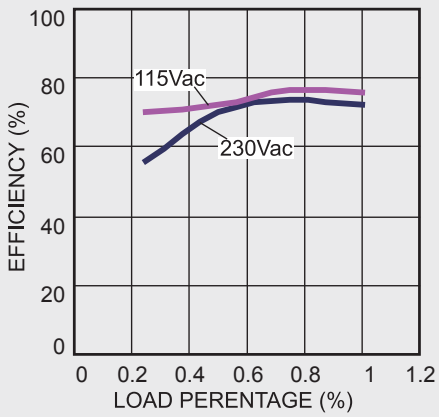
FETURES

- Integrated 13 Ω 900 V-MOSFET and HV soft start circuit up to 8 W rated power
- Programmable switching frequency up to 300 kHz
- Frequency jittering for better EMI
- Full protection OTP, OVP, OLP, SCP, VCC UVLO, Input OVP, etc.
- High reliability due to accurate over-temperature protection: temperature sensing and control integrated on MOSFET
- PRO for programmable Input Line OVP

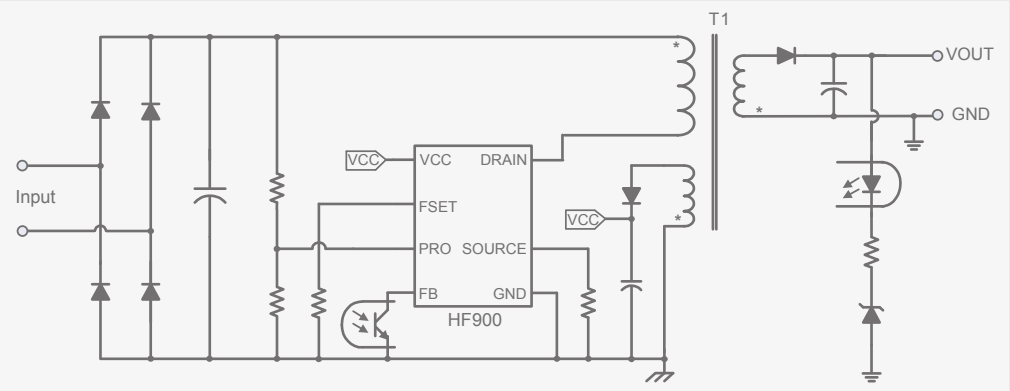
BENEFITS

- High reliability
- Low EMI
- Low cost solution
- Suitable for power meter application
- Easy for customers to avoid frequency interferences with other circuits

EFFICIENCY VS. LOAD



TYPICAL APPLICATION HF900



PDIP8-7 EP and **SOIC14-11** packages available

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