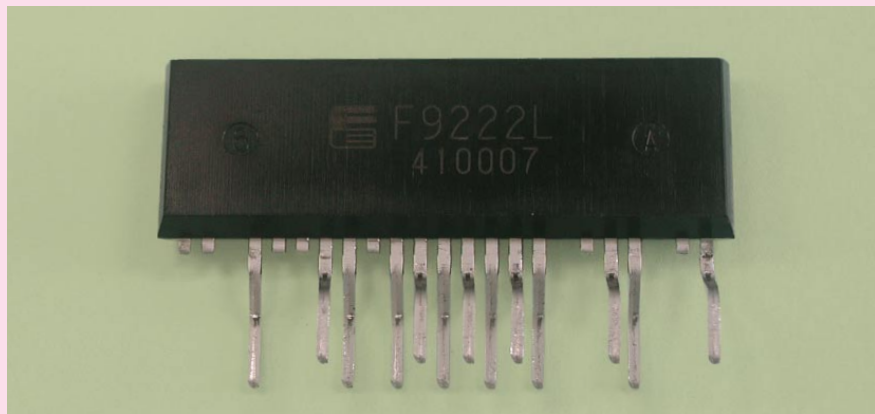


# 富士开关电源用灵巧电力器件

## Fuji Smart power device for switching power supply

### M-Power2



#### ● 总论 Summary

系统：富士原创之完美系统  
包含多项功能(软开关, 待机)

器件：多芯片电源器件：M-POWER2  
在SIP-13封装里包含IC及2棵MOSFET  
及多项保护功能

System: The ideal and Fuji's original system  
It includes many functions (Soft-switching, stand-by).

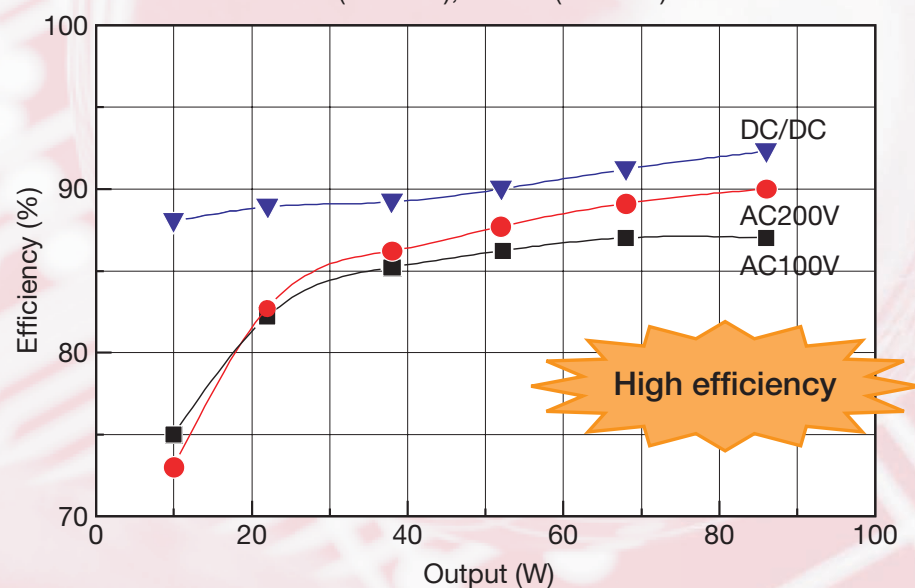
Device: Multiple-chip Power Device: M-POWER2 contains IC and  
two MOSFET's in SIP-13pin package.  
M-POWER has various types of protection functions.

#### ● 特性 Features

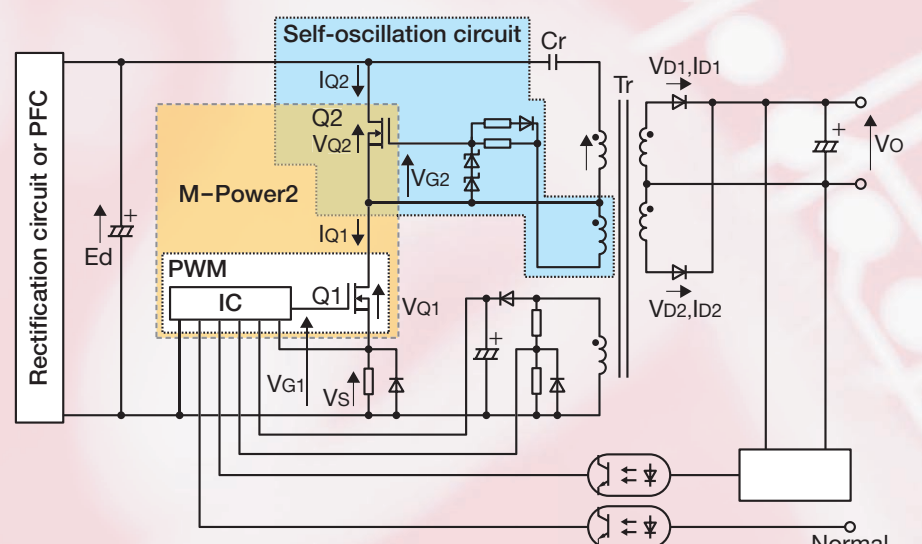
1. 高效能 · (a reduction in SMPS size is possible.)  
DC/DC: 92.3% (DC input: 400V, output: 16V)  
PFC+DC/DC: 87.0% (AC100V), 89.5% (AC200V)
  2. 内藏待机制式 · (An auxiliary power supply is unnecessary.)  
 $P_{in} < 0.4W$  at  $P_{out} = 0.0W$ ,  $P_{in} < 1.0W$  at  $P_{out} = 0.5W$   
 $P_{in} < 4.0W$  at  $P_{out} = 2.0W$
  3. 低噪音 (a reduction in the noise suppression parts is possible.)  
MOSFET's Turn-on: ZVS+ZCS, Turn-off: ZVS  
Diodes (secondary side)  
Surge voltage does not occur at reverse recovery
  4. 保护功能 (Built-in protection functions: OC, SC, OV, Tj (OH) )
  5. 简化设计 (Reduction of design time)
1. High efficiency (a reduction in SMPS size is possible.)  
DC/DC: 92.3% (DC input: 400V, output: 16V)  
PFC+DC/DC: 87.0% (AC100V), 89.5% (AC200V)
  2. Built in stand-by mode (An auxiliary power supply is unnecessary.)  
 $P_{in} < 0.4W$  at  $P_{out} = 0.0W$ ,  $P_{in} < 1.0W$  at  $P_{out} = 0.5W$ ,  
 $P_{in} < 4.0W$  at  $P_{out} = 2.0W$
  3. Low noise (a reduction in the noise suppression parts is possible.)  
MOSFET's Turn-on: ZVS+ZCS, Turn-off: ZVS  
Diodes (secondary side)  
Surge voltage does not occur at reverse recovery.
  4. Fail-safety (Built-in protection functions: OC, SC, OV, Tj (OH) )
  5. Easy design power supply (Reduction of design time)

#### ● 特征 Characteristic

DC/DC: 92.3% (DC input: 400V, output: 16V)  
PFC+DC/DC: 87.0% (AC100V), 89.5% (AC200V)



#### ● 回路简图 Circuit configuration



Q1 ... PWM oscillation  
Q2 ... Self-oscillation (driven by winding voltage).