

High efficiency, reduced dimension and space for power circuits of household appliances

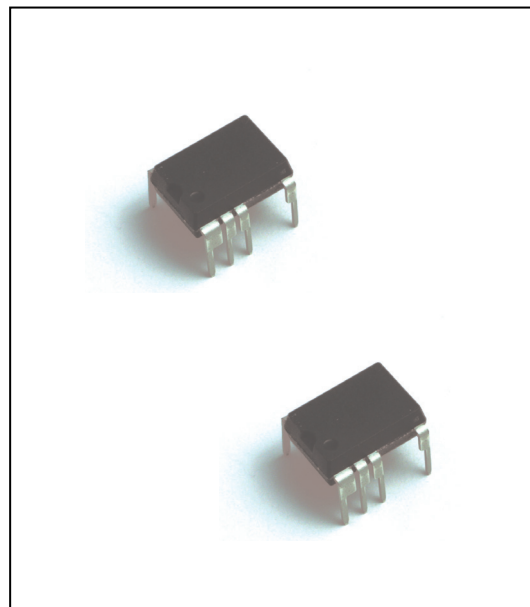
## Power Units with Built-in Non-insulated Power Supply IPD MIP9E×× Series

### ■ Overview

Power unit MIP9E×× series are modules for non-insulated power supplies, carrying power MOSFET for switching devices, its control circuits, and circuits detecting output voltage. This enables high power and efficiency of power supply as well as reduced dimension and space of power circuits by using less components and smaller packages.

### ■ Feature

- Supports worldwide input (80 to 264VAC), achieving high efficiency in no load to rated load.
- Controls characteristic change of output voltage affected by ambient temperature.
- Built-in overheat protection circuit with DRAIN peak current control function.
- Supports positive/negative-polarity output and multiple output.



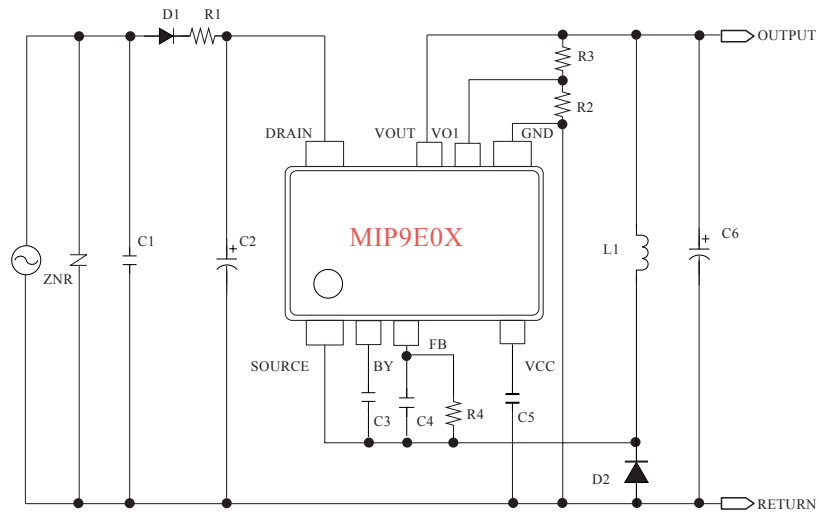
### ■ Applications

Washing machines, electric carpets, refrigerators, fan motors, vacuum cleaners, rice cookers, boilers, IH cooking heaters, electric pots, and lighting

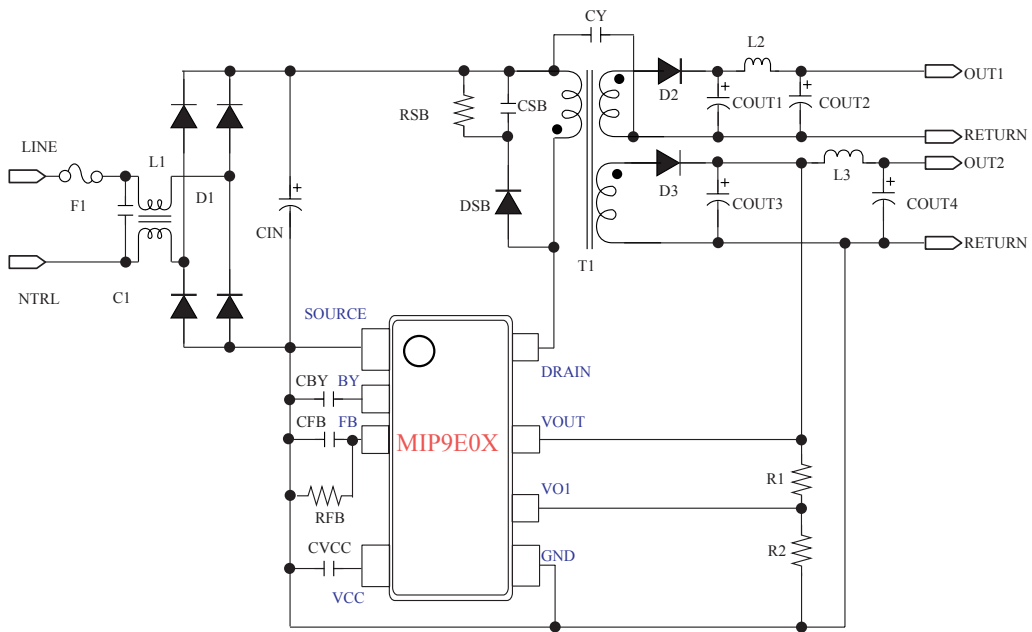
### ■ Specifications

Part Number	VDSS	Control system	Output current	Package
MIP9E01	≥700V	Intermittent + PWM	450 mA	SDIP10-A1(CF) (DIP-8 Equivalent)
MIP9E02			250 mA	

■ Example of Application Circuit



A) Step-down chopper-type non-insulated power supply circuit  
(Half-wave rectifier/positive output)



(b) Transformer-style non-insulated power supply