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Product News

Realizing high-efficiency and downsizing

IPD for switching power supply （MIP521A)

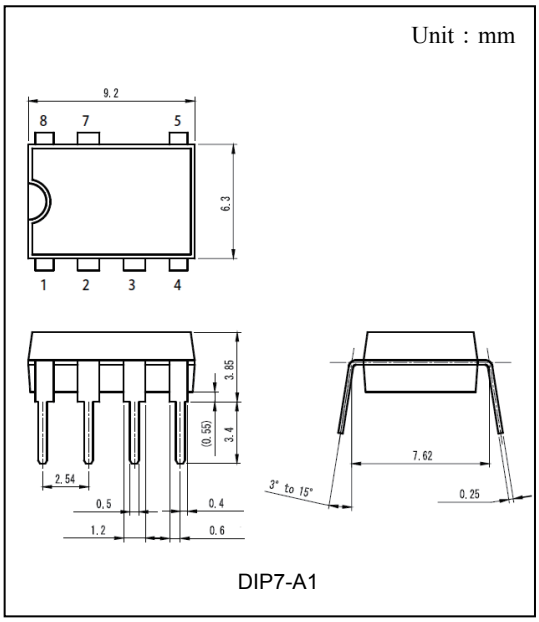
■ Overview

MIP521A is suitable for standby power supplies of TVs, main power supply for white goods, etc. Energy consumption is reduced to less than 30mW(@240V at no load), which makes it easier to meet energy efficiency regulations such as ErP, Energy Star, GB.

Newly developed power MOSFET withstanding voltage of 800V realizes the reduction of energy loss by snubber circuit.

Built-in frequency jitter function can reduce average EMI noise and get rid of EMI filter cost.

Protection function of over voltage/load/temperature can achieve the safety.



DIP7-A1

■ Features

- Intermittent control at light load condition
  ⇒High efficiency at light load
- High power MOSFET withstanding Voltage of 800V
- Frequency jitter function
  ⇒Reduce average EMI noise and simplify EMI filter design
- Protection function

  Overload protection function
  ⇒Auto Restart（Timer Intermittent operation）

  Overvoltage protection function
  ⇒Latch-up shutdown（VCC pin voltage 30V）

  Overtemperature protection function
  ⇒Auto restart（Shutdown at 140°C, hysteresis at 70°C）

Pin No	Pin Name	Function
1	VIN	Current Supply for startup circuit
2	NC	No connect
3	VDD	Circuit reference voltage
4	VCC	Start/Stop, Current supply to circuit, Timer intermittent at overload condition, Overvoltage protection
5	DRAIN	Drain of Power MOSFET
6	–	–
7	SOURCE	Source of Power MOSFET Circuit GND
8	FB	Feedback, Overload protection detecting

■ Applications

TVs, white goods, etc.

■ Specifications

Product	Output Power	Characteristics				Package	Development Schedule
		VDSS	ILIMIT	RON (typ.)	Fosc (typ.)		
MIP521A	W/W： up to 10W China： up to 15W	800V	0.5A	9.2Ω	65kHz	DIP7-A1	9/E MP

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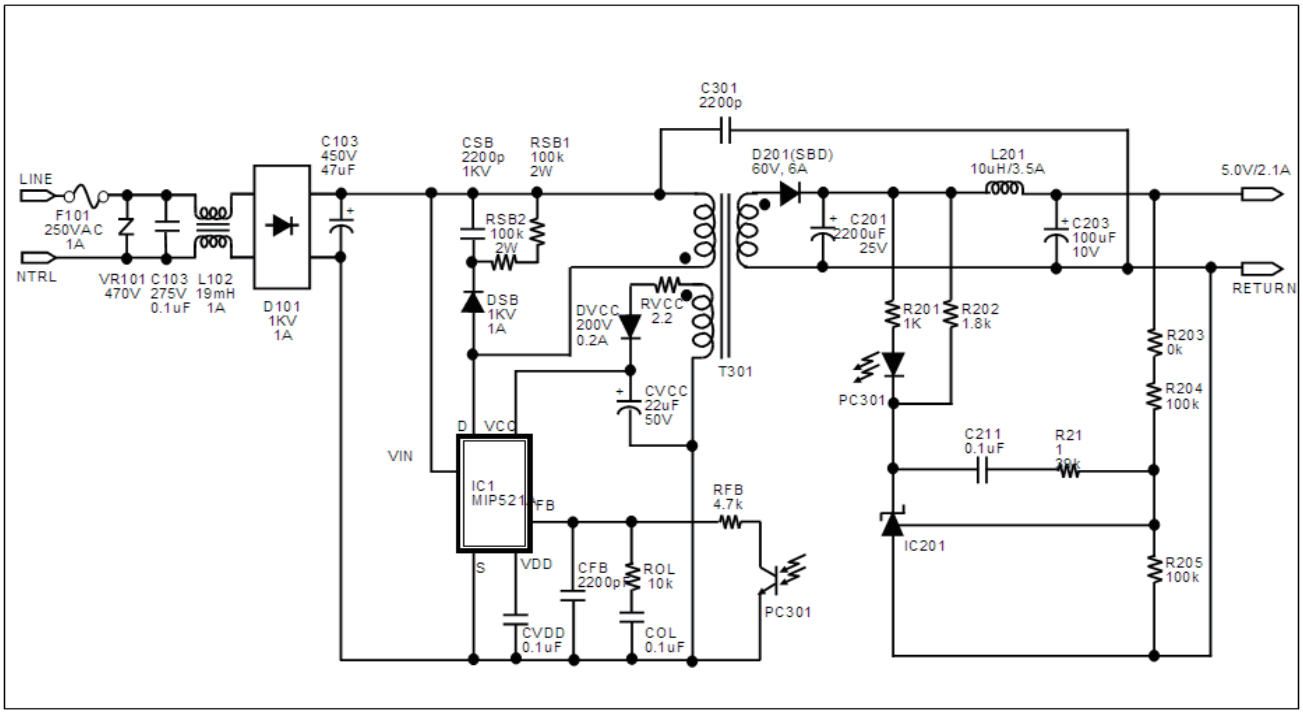
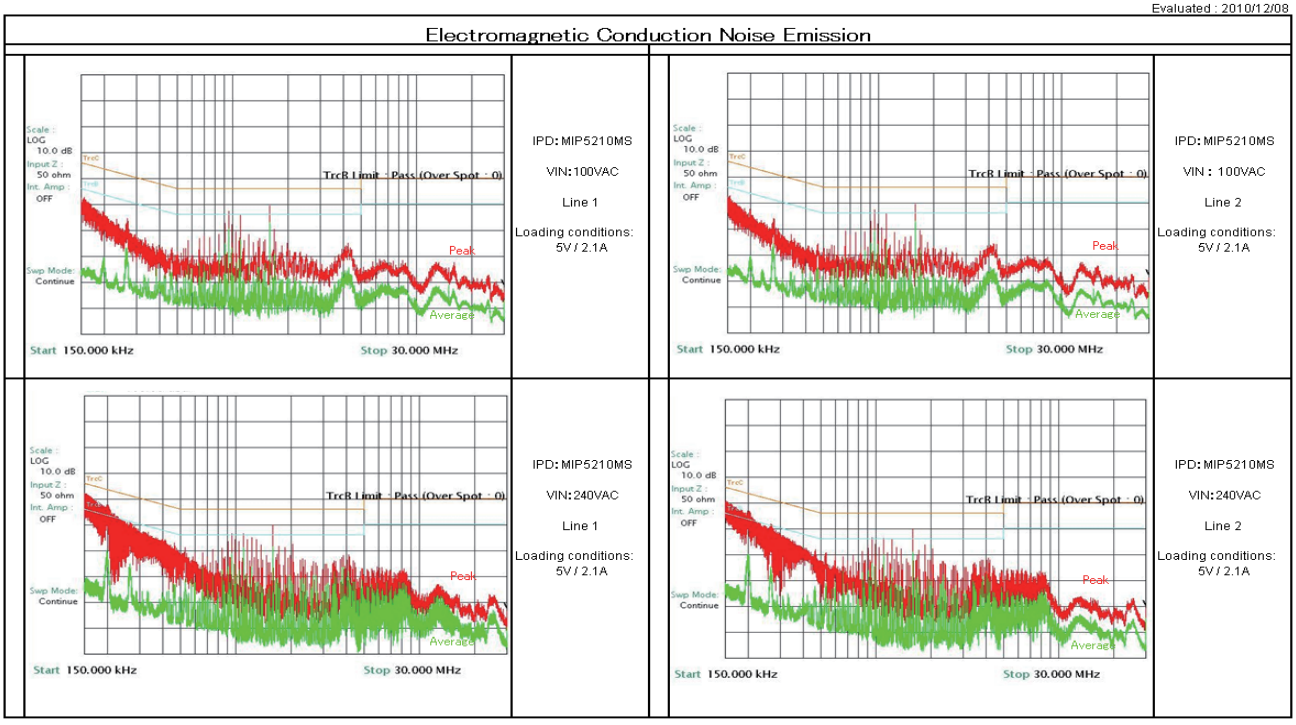
■ Example of application circuit



■ Reference Data1 : Electromagnetic Conduction Noise Emission

Evaluated : 2010/12/08



■ Reference Data2 : Power supply characteristic for full load range