



SR087 Inductorless Switching PS Demoboard

Part Number: ADM00947

Summary

The Supertex SR087DB1 is an inductorless switching power supply intended for operation directly from a 120/230VAC line. Two outputs, 12.6V and 5.0V are provided. The operating principle is to turn on a pass transistor when the rectified AC input is below the output voltage, and to turn it off when the output storage capacitor is charged up to the regulation point. Since the output capacitor charges up on the rising edge of a sine wave, reasonable efficiencies can be obtained without the use of magnetics.

Package Contents

1x SR087 Inductorless Switching Power Supply Demoboard (ADM00947)

Product Features

AC Input (VIN): 90 to 270VAC, 45Hz to 65Hz

Output voltages:

VOUT (no load): 12.6V \pm 8% (Adjustable from 9.0V to 50V)

VREG: 5.0V \pm 5%

Output current, max:

I_{REG}=60mA (For VIN=120VAC)

I_{OUT} + I_{REG}=100mA (For VIN=120VAC)

I_{REG}=60mA (For VIN=230VAC)

I_{OUT} + I_{REG}=60mA (For VIN=230VAC)

Efficiency, typ. (full load):

52% (For VIN=120VAC)

44% (For VIN=230VAC)

Standby power, typ. (no load):
62mW (For VIN=120VAC)

200mW (For VIN=230VAC)

