# 12v switching power supply circuit

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In this tutorial, we will demonstrate a simple, easy, and low-cost electronic circuit design. A 12V 10A power supply circuit. 12VDC power supplies are fundamental power supplies with an AC input and 12V DC yield voltage. The yield voltage changes with the input voltage and load. These power supplies are cheap and very dependable.

The 230V to 12V 10A transformer is utilized to step down the main voltage. The 10 Ampere diode rectifies the voltage originating from the transformer and the capacitors are utilized to filter out the voltage signal.

The most extreme yield current of the IC is 1.5A consequently, we have utilized two TIP2955 transistors to lift the output current to 10A. The two fuses of 1A and 10A are deployed to secure the IC, transistors, and different components of the circuit from overcurrent. Try to utilize appropriate heat sinks with the IC and transistors to avoid overheating.

The important component Q1(BD140) acts as switching and has common the main components is L1, D1. Both transistors, NPN+PNP act as feedback to each other. To generates the frequency or to work as the switching continuously. But this circuit, the current of the coil is not maximum. Because there is a voltage detector or error sensor with C2, R4, and ZD1 12V Zener diode to control the voltage to be constant.

I love electronics. I have been learning about them through creating simple electronic circuits or small projects. And now I am also having my children do the same. Nevertheless, I hope you found the experiences we shared on this site useful and fulfilling.

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