

Need help to design DC-to-DC step down SMPS using MC34063A

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Hi,

I would like to design a SMPS to make a step down DC to DC converter to supply my digital camera with power. The camera needs 3,3 V and draws a max of 1,1 A at power-on and when charging the flash, and about 500 mA when idling. I have the SMPS IC MC34063A and would like to use it if possible.

The datasheet is here;

<http://www.onsemi.com/pub/Collateral/MC34063A-D.PDF>

Application data is here;

<http://www.onsemi.com/pub/Collateral/AN920-D.PDF>

The initial idea was to use 8 pcs NiMH cells for a total of 10 V as input voltage, but I can get more NiMH cells if the input voltage need to be higher.

I have tried to follow the design example in the application data but got a switching current between 2 and 3 Amps, and the spec indicates a max switching current of 1,5 A for the IC. Still there are examples in the datasheet with circuits delivering up to 5A, so I don't know what I'm doing wrong. What I really need is a drawing that indicates the values of the surrounding components of the MC34063 IC.

If the IC MC34063A is not suitable for this application could you please direct me to a circuit that would be suitable?

Thank you in advance for your help.

marty

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