Sipex Part: SP6685

Date: June 2, 2006

Question:

How do you choose the Torch mode for the SP6685? I connected pin 4 of the SP6685 to ground, but it does not work.

Answer:

When you try to turn on the SP6685, you need to connect EN pin to Vin or to some logic high for the length of time that you need the LED to be on, in addition to connecting the Flash pin to GND. You also need to have selected a R_{FB} resistor to sense the current through the LED, as shown in the typical application circuit on page 1 of the SP6685 datasheet. If you have further problems, please send Sipex.support@sipex.com your output requirements such as the forward voltage of the LED and the output current desired as well as the input voltage range.

Question:

I am having some problems with the SP6685 and would like to see some waveforms at the external fly capacitor pins. How do I know if the problem is the capacitor I currently have for the flying capacitor? It is a 1uF Y5U +80/-20 % tolerance. I have some X7R's on order but the datasheet does not show waveforms at the fly capacitor pins so I do not know what to expect.

Answer:

If it were a too small value in the flying capacitor due to the temperature coefficient of the capacitor, the part would still work OK and may have a little more output resistance. Capacitor values on V_{IN} and V_{OUT} will affect the output ripple values. We would need you to describe in more detail the problems you are having and the conditions for V_{IN}, V_F of the LED and I_{OUT}, and send Sipex.support@sipex.com your output requirements and questions.