Pin Functions

PIN				BEACHING I
NAME	HTSSOP	VQFN	1/0	DESCRIPTION
BASE	3	6	0	Base drive output for the external transistor. If Linear Regulator is not needed pull this pin against VIN.
VCOMIN	11	14	T.	Positive input terminal of the VCOM buffer. When the VCOM buffer is not used, this terminal can be connected to GND to reduce the overall quiescent current of the IC.

8.3.2 VCOM Buffer

VCOMIN is the input of the VCOM buffer. If the VCOM buffer is not required for certain applications, it is possible to shut down the VCOM buffer by statically connecting VCOMIN to ground, reducing the overall quiescent current. The VCOM pin can be left open in this case. The VCOM buffer features soft start avoiding a large voltage drop at V_{O1} during start-up. During operation the VCOMIN cannot be pulled dynamically to ground.

8.3.6 Linear Regulator Controller

The TPS6510x series includes a linear regulator controller to generate a 3.3-V rail which is useful when the system is powered from a 5-V supply. The regulator is independent from the other voltage rails of the device and has its own enable (ENR). Since most of the systems require this voltage rail to come up first it is recommended to use a R-C delay on EN. This delays the start-up of the main boost converter which will reduce the inrush current as well. If the linear regulator is not used then it is recommended to pull ENR pin to GND and to pull BASE and FB4 pin to VIN.

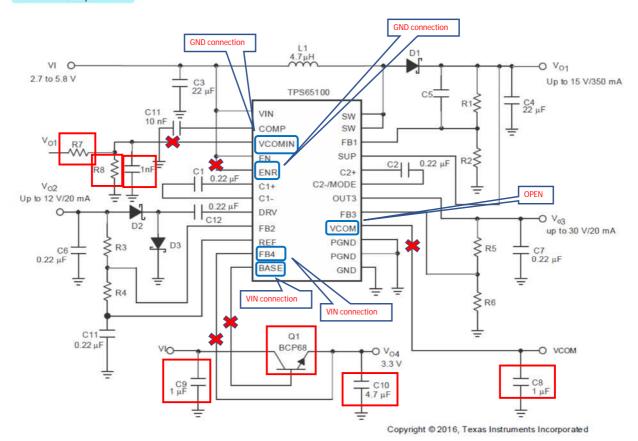


Figure 15. Typical Application Circuit