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Power Solutions from ON Semiconductor

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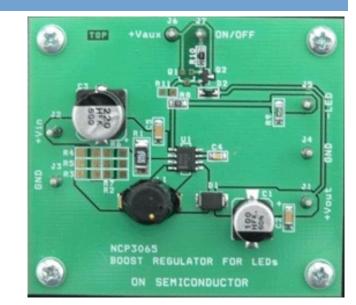
Technical Support

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NCP3065SOBSTGEVB:NCP3065 BOOST DEMO BD

Evaluation Board Description

The NCP3065 is a monolithic switching regulator designed to deliver constant current for powering high brightness LEDs (HBLED). The device has a very low feedback voltage of 235 mV (nominal) which is used to regulate the average current of the LED string. In addition, the NCP3065 has a wide input voltage up to 40 V to allow it to operate from 12 Vac or 12 Vdc supplies commonly



used for lighting applications as well as unregulated supplies such as Lead Acid batteries.

The device can be configured in a controller topology with the addition of an external transistor to support higher LED currents beyond the 1.5 A rated switch current of the internal transistor. The NCP3065 switching regulator can be configured in Step - Down (Buck) and Step - Up (boost) topologies with a minimum number of external components.

Features and Applications

Features

- Integrated 1.5 A Switch
- Input Voltage Range from 3 V to 40 V
- 2 Low Feedback Voltage of 235 mV
- ? Cycle by Cycle Current Limit
- ? No Control Loop Compensation Required
- Frequency of Operation Adjustable up to 250 kHz
- ? Operation With All Ceramic Output Capacitors or No **Output Capacitance**
- ? Analog and Digital PWM Dimming Capability
- ? Internal Thermal Shutdown with Hysteresis

Evaluation Board Information Evaluation Board Short Description Status Parts Used Action Contact Local NCP3065 BOOST NCP3065SOBSTGEVB NCP3065DR2G Active **DEMO BD** Sales Office

Technical Documents			
Туре	Document Title	Document ID/Size	Rev
Eval Board: BOM	NCP3065SOBSTGEVB Bill of Materials ROHS Compliant	NCP3065SOBSTGEVB_BOM_ROHS.PDF - 177.0 KB	0
Eval Board: Gerber	NCP3065SOBSTGEVB Gerber Layout Files (Zip Format)	NCP3065SOBSTGEVB_GERBER.ZIP - 31.0 KB	0
Eval Board: Schematic	NCP3065SOBSTGEVB Schematic	NCP3065SOBSTGEVB_SCHEMATIC.PDF - 121.0 KB	0
Eval Board: Test Procedure	NCP3065SOBSTGEVB Test Procudure	NCP3065SOBSTGEVB_TEST_PROCEDURE.PDF - 181.0 KB	0

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