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DC502A - LT1767 Evaluation Kit

FEATURES

DESCRIPTION

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FEATURES

▪ Evaluation Kit for LT1767 - Monolithic 1.5A, 1.25MHz Step-Down Switching Regulators

▪ 1.25MHZ Wide Input Range Step Down DC/DC Converter

▪ 1.25MHz 1.5A monolithic step-down DC/DC switching converter using the LT1767 buck regulator

▪ 1.5A internal power switch

▪ Wide input voltage range

▪ Input Voltage Range 6.6V - 25V

▪ Typical Efficiency $V_{IN} = 12V, V_{OUT} = 5V, I_{OUT} = 1A$ 84%

TYPICAL APPLICATION

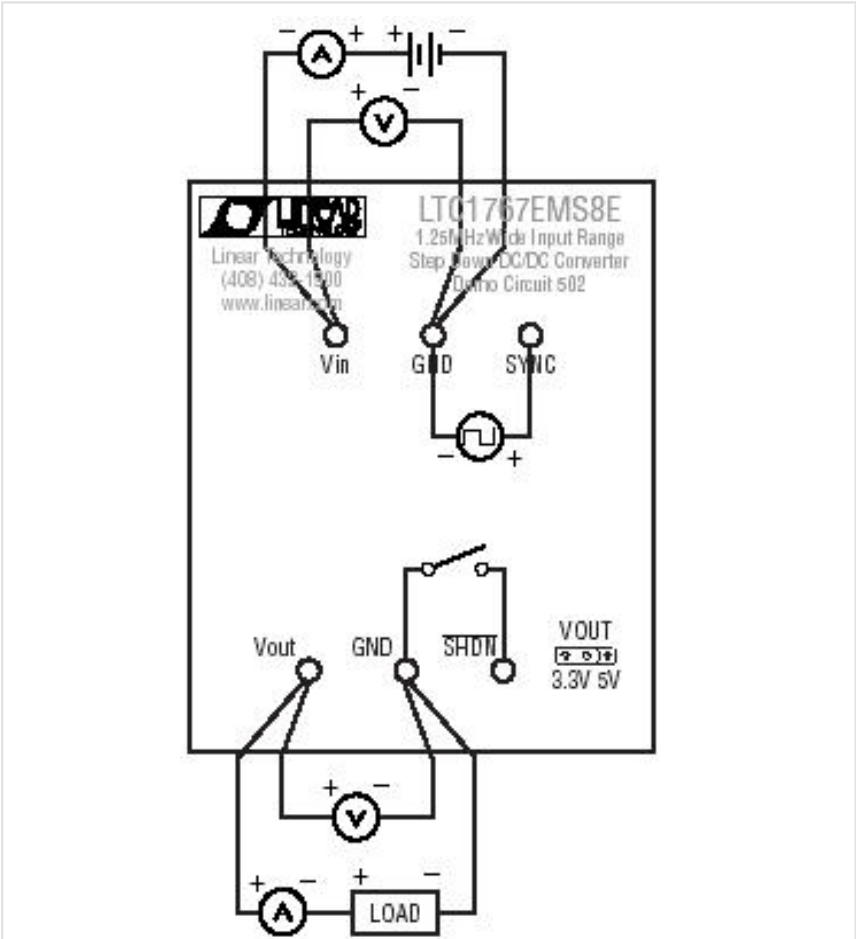


Figure 1. Proper Measurement Equipment Setup

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DESCRIPTION

Demonstration circuit 502 is a 1.25MHz 1.5A monolithic step-down DC/DC switching converter using the LT1767 buck regulator. With its fast switching speed, 1.5A internal power switch, and wide input voltage range, the LT1767 is a very versatile and powerful IC for DC/DC converters that require compact space and a wide variety of input voltage ranges. The constant 1.25MHz switching frequency allows all of the components to be very small, surface mount devices. The current-mode control topology creates fast transient response and good loop stability with a minimum number of external compensation components and ceramic input and output capacitors. The low resistance internal power switch (0.22 Ω) maintains high efficiencies >80% and up to 90%. The SHDN pin and 6 μ A shutdown current extends battery life. The wide V_{IN} range of the LT1767 allows step-down configurations from 3Vin up to 25Vin. Synchronization of switching frequencies up to 2MHz is possible. Demonstration Circuit 502 is a step-down converter using the LT1767EMS8E. The circuit is designed for 6.6-25V input to 5.0V output @1A or for 4.5-25V† input to 3.3V output @1A for cable modem, handheld, automotive, and desktop computer applications. The output voltage is jumper selectable (5V or 3.3V). This board was designed for wide input voltage range applications where simplicity, small circuit size, and low component count are important as well as up to 1A of load current. The use of ceramic capacitors not only demonstrates small size and low cost, but the advantage of current-mode control in step-down applications with a simple compensation network and a place-holder for a feedforward capacitor for more rugged stability and optimal transient response if required.

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▪ Part numbers containing TR or TRM are shipped in [tape and reel or 500 unit mini tape and reel](#), respectively

▪ Please refer to our [general ordering information](#) or the product datasheet for more details

Evaluation Kits

Part Number	Description	Price
DC502A	LT1767EMS8E 1.25MHz Wide Input Range Step Down DC/DC Converter, 3V to 25V Input, 5V/3.3Vout @ 1A	\$75.00

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SIMULATE

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