



## **36V Monolithic 1A Push-Pull DC/DC Transformer Driver with Programmable Duty Cycle Control**

MILPITAS, CA – September 22, 2014 – Linear Technology Corporation announces the [LT3999](#), a monolithic push-pull isolated DC/DC transformer driver with two 1A current limited power switches. The LT3999 operates over an input voltage range of 2.7V to 36V, is targeted for power levels up to 15W and can produce a wide range of output voltages. This makes it well suited for automotive, industrial, medical and military applications.

The programmable duty cycle and turns ratio of the transformer sets the output voltage. Several off-the-shelf transformers shown in the data sheet simplify the design. The switching frequency is adjustable from 50kHz to 1MHz and can be synchronized to an external clock. The LT3999 input operating voltage range is set with the precise undervoltage and overvoltage lockouts. The supply current is reduced to less than 1 $\mu$ A during shutdown. A user-defined RC time constant provides an adjustable soft-start capability by limiting the inrush current at start-up and an onboard cross-conduction prevention circuit increases reliability.

The LT3999 is available in thermally enhanced MSOP-10 and 3mm x 3mm DFN-10 packages. The LT3999 E- and I-grade versions operate from a  $-40^{\circ}\text{C}$  to  $125^{\circ}\text{C}$  junction temperature. The LT3999 H grade is guaranteed to operate from a  $-40^{\circ}\text{C}$  to  $150^{\circ}\text{C}$  operating junction temperature. The LT3999 MP grade is guaranteed to operate from  $-55^{\circ}\text{C}$  to  $150^{\circ}\text{C}$  operating junction temperature. Devices are in stock, and the 1,000-piece price starts at \$2.75 each for the E-grade. For more information, visit [www.linear.com/product/LT3999](http://www.linear.com/product/LT3999)

## Photo Caption: Push-Pull DC/DC Transformer Driver

### Summary of Features: LT3999

- Wide  $V_{IN}$  Range: 2.7V to 36V
- Dual 1A Switches
- Programmable Switching Frequency: 50kHz to 1MHz
- Synchronizable to an External Clock up to 1MHz
- Duty Cycle Control for Output Voltage Regulation
- Low Noise Topology
- Programmable Input Over & Undervoltage Lockout
- Cross-Conduction Prevention Circuitry
- Extended & Industrial Grades:  $-40^{\circ}\text{C}$  to  $125^{\circ}\text{C}$  Operating Junction Temp
- Automotive Temp Grade:  $-40^{\circ}\text{C}$  to  $150^{\circ}\text{C}$  Operating Junction Temp
- Military Temp Grade:  $-55^{\circ}\text{C}$  to  $150^{\circ}\text{C}$  Operating Junction Temp

The USA list pricing shown is for budgetary use only. International prices may differ due to local duties, taxes, fees and exchange rates.

### About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for over three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs,  $\mu\text{Module}^{\circledR}$  subsystems, and wireless sensor network products. For more information, visit [www.linear.com](http://www.linear.com)

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