

LT1309

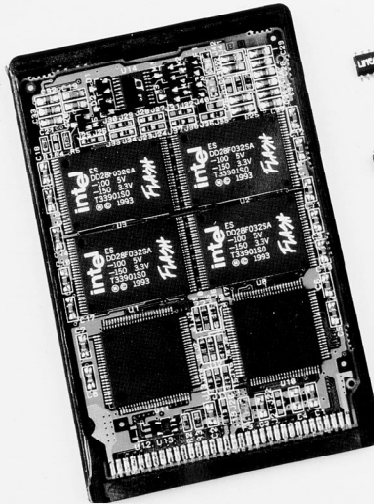
- 60mA output current at 12V from 3.3V or 5V supply
- Shutdown current only 9 μ A
- Up to 85% efficiency
- 500KHz switching frequency
- V_{PP} VALID comparator
- Soft-start reduces supply current transients
- Quiescent current: 650 μ A
- Low VCESAT switch: 300mV at 0.5 μ A (typical)
- Uses low value, small size surface mount inductors
- Available in 8-Ld SOIC package

The LT1309 is a DC/DC converter that substantially reduces the size of the 12V power supply used for flash memory programming. The LT1309 operates at 500KHz switching frequency, permitting extremely small, low-value, surface mount inductors and capacitors to be used with the device. A complete 5V or 3.3V to 12V/60mA DC/DC converter requires just two capacitors, one 10 μ H inductor and one diode along with the LT1309. Voltage conversion for all Intel Flash memory devices is easily accomplished with the LT1309. The device is also useful for host-side 12V V_{PP} generation and Type II and III flash memory card internal 12V V_{PP} generation from a 3.3V supply.

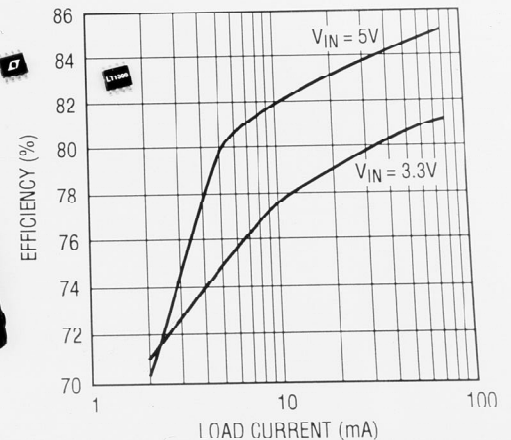
To simplify the interface to external control logic, the LT1309 includes a V_{PP} VALID comparator. The comparator's V_{PP} VALID logic output goes low when the output voltage is within 5% of 12V, providing a clear indication that the V_{PP} voltage is sufficient to program 12V flash memory. A soft-start feature limits supply current inrush during turn-on, eliminating input supply voltage drops due to high current surges. A resistor and capacitor connected to the soft start pin determine the soft start timing.

The LT1309 uses Burst Mode* operation which combines with an on-chip 0.5 ampere, 300mV switch to produce 85%

“FLASH POWER”



LT1309 12V Output Efficiency



peak efficiency when boosting 5V to 12V. Quiescent current is just 650 microamperes. Shutdown of the LT1309 is achieved by pulling the active-low on/off pin to ground reducing quiescent current to just 9 μ A.

INTEL FLASH MEMORY

SUPPORTED:

28F010, 28F001BX, 28F020, 28F002BC, 28F002BL, 28F002BV, 28F002BX, 28F200BL, 28F200BV, 28F200BX, 28F200CV, 28F004BE, 28F004BL, 28F004BV, 28F004BX, 28F004SC, 28F400BL, 28F400BV, 28F400BX, 28F400CE, 28F400CV, 28F008BE, 28F008BV, 28F008SA, 28F008SC, 28F800BV, 28F800CE, 28F800CV, 28F016SA, 28F016SC, 28F016SV, 28F016XD, 28F016XS, 28F032SA, Series 2 Cards, Series 2+ Cards, Value Series 100 Cards, Series 100 Miniature Cards

AVAILABILITY:

Now

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