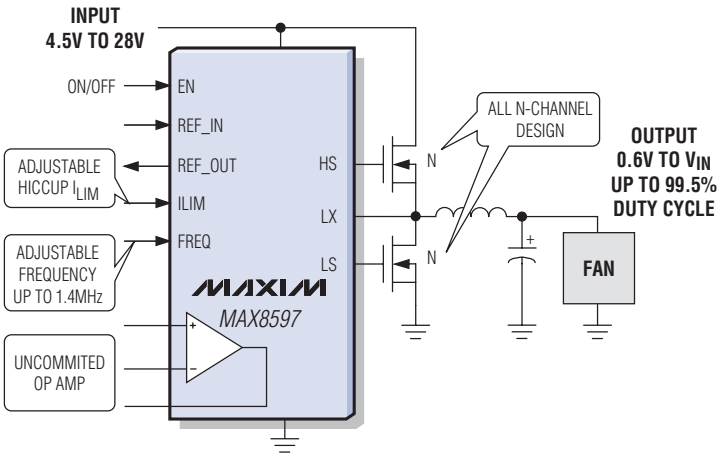
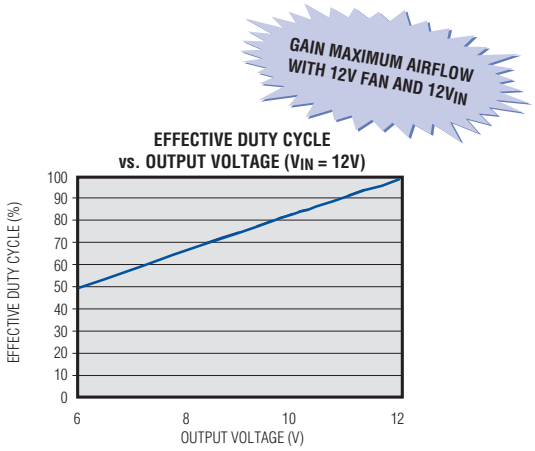
HIGHEST DUTY CYCLE, ALL N-FET DESIGN SAVES COST IN FAN-CONTROL POWER DESIGNS

Eliminate the Need for High-Side P-Channels to Save Cost, Still Get 99.5% Duty Cycle

The MAX8597/MAX8598/MAX8599 PWM, step-down DC/DC controllers achieve 99.5% duty-cycle operation using a low-cost high-side N-channel, rather than a traditional P-channel. This saves system cost. The MAX8597 includes an uncommitted operational amplifier useful for a wide variety of applications, including fully differential remote sensing or dynamic control of the output voltage. For fan-speed control applications, its output voltage can be adjusted using an analog voltage or a PWM signal. This low-cost versatile solution can also be used in DDR memory, point-of-load, tracking, and DSP and chipset applications. The small, 4mm x 4mm TQFN package minimizes footprint while maximizing thermal dissipation.





- **Low Dropout (>99.5% Duty Cycle)**
- **Uncommitted Op Amp for Output Voltage (Fan-Speed) Control**
- **Lossless Current Sensing**
- **Prebias Startup**
- **High Bandwidth (25MHz) Error Amplifier**
- **Up to 1.4MHz Switching Frequency**

Part	Uncommitted Op Amp	Ext REF IN	Enable Control	POK Output	Overvoltage Protection	Package (mm x mm)
MAX8597	✓	✓	✓			20-TQFN (4 x 4)
MAX8598			✓	✓		16-TQFN (4 x 4)
MAX8599			✓	✓	✓	16-TQFN (4 x 4)

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