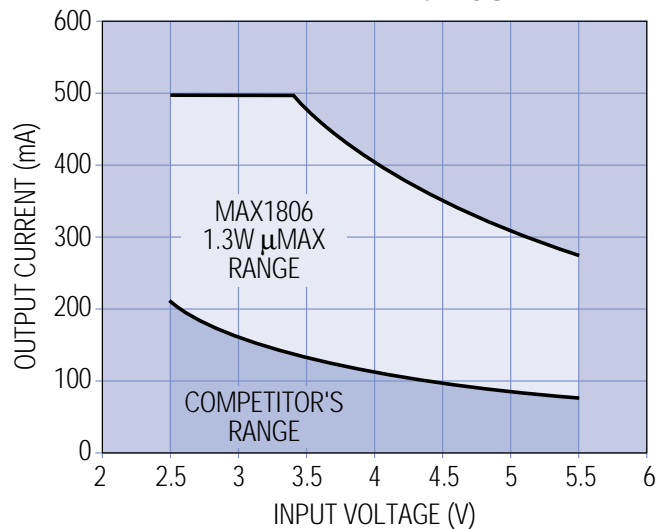


FIRST 500mA LINEAR REGULATOR WITH 0.8V OUTPUT IN 1.3W μ MAX PACKAGE


The MAX1806 delivers outputs down to 0.8V at 500mA for new and future processor core power supplies. The small μ MAX package is specially constructed to dissipate 1.3W, which is 3.6x more than the competitor's parts in the same package. Output voltage tolerance is $\pm 1\%$ and is preset (to save space and cost) or adjustable from 0.8V to 4.5V (for flexibility). A Power-OK output-signal indicates when the output voltage drops from its nominal value by more than 7%. It includes current-limiting and shuts off in the event of short-circuit or thermal-overload faults. The MAX1806 uses a P-channel MOSFET power switch so there is no large base current draw, even in dropout. This device is priced at \$1.40.[†]

- ◆ Guaranteed 500mA Output
- ◆ Regulated Outputs down to 0.8V
- ◆ $\pm 1\%$ Voltage Accuracy:
 - Preset Voltages: 0.8V, 1.5V, 1.8V, 2.5V, or 3.3V
 - Adjustable Range: 0.8V to 4.5V
- ◆ Power-OK Output
- ◆ 1.3W 1.1mm-High μ MAX Package
- ◆ 2.25V to 5.5V Input Range
- ◆ Low 175mV Dropout at 500mA
- ◆ 210 μ A Quiescent Supply Current
- ◆ 0.02 μ A Shutdown Current

OPERATING RANGE, $V_{OUT} = 0.8V$



8- μ MAX



2.9mm x 2.8mm
1.1mm High

DISSIPATES 1.3mW!

The MAX1806 provides regulated outputs as low as 0.8V at 500mA to supply the core voltage in the newest generation of processors for handheld computers and communicators. Its thermally enhanced μ MAX package dissipates up to 1.3W for a 3.6x wider operating range.

[†]\$1,000-up recommended resale, FOB USA. Prices provided are for design guidance and are for the lowest grade, commercial temperature parts. International prices will differ due to local duties, taxes, and exchange rates. Prices are subject to change. Not all packages are offered in 1k increments, and some may require minimum order quantities.



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