600mA Step-down DC-DC Converter with Synchronous Rectifier

The AP3405 is highly integrated with 2.0MHz fixed frequency, current mode, PWM synchronous buck (step-down) DC-DC converter, and is capable of driving a 600mA load with high efficiency and excellent line and load regulation.

The device’s high efficiency is easily configured by using external components.

Current mode control provides fast transient response and cycle-by-cycle current limit.

The AP3405 employs complete protection to ensure system security, including Input Undervoltage Lockout, Overtemperature Protection and hiccup mode Short Circuit Protection.

The device is targeted at cellphone, tablet and netbook applications.

AP3405 is available in the space saving, industry standard U-DFN2020-8 package.

The Diodes Advantage

- Synchronous DCDC Buck Converter with Continued Load Current of 600mA
  - High Switching Frequency Operation for small external components
  - Current mode control provides fast transient response
  - Excellent high-efficiency line and load regulation

- Protection
  Cycle-by-cycle current limit, overvoltage protection, undervoltage lockout, overtemperature protection and hiccup mode at short circuit protection.

- Package  – U-DFN2020-8
  Industry standard package

Applications

- Cell Phones
- Battery Powered Products
- Wearable Devices
## New Product Announcement

**AP3405**

### Typical Application Schematic:

![Typical Application Schematic](image)

### Product Portfolio

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Input Voltage (V)</th>
<th>Output Voltage (V)</th>
<th>Output Current (A)</th>
<th>Frequency (kHz) typ</th>
<th>Internal Vref (V) typ</th>
<th>Efficiency (%)</th>
<th>Standby Quiescent Current (μA) typ</th>
<th>Operating Ambient Temp Range (°C)</th>
<th>Enable Pin</th>
<th>Current Limit Protection</th>
<th>Thermal Shutdown</th>
<th>Adjustable Output Voltage Undervoltage Lockout</th>
<th>Softstart</th>
<th>Packages</th>
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<tbody>
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### Ordering Information

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