



## New Product Announcement

### AP7380

# Wide Input Voltage Range Micro-Power 150mA LDO extends operating life

The AP7380 is an ultra-low quiescent current (Micro-Power) wide input voltage range (up to 24V<sub>in</sub>) low dropout regulator. This, combined with its high accuracy (1% tolerance) make it ideal for use in various USB Power, portable devices and industrial applications.

The AP7380 is available in 3.0V, 3.3V, 4.15V, 4.4V and 5.0V fixed output voltage versions. All are available in SOT25 (with and without enable) and SOT89 (without enable) packages in green molding and are RoHS compliant.



## The Diodes Advantage

**The AP7380 maximizes system run times with its extremely low quiescent current**

- **Wide Input Voltage: 3.5V to 24V**  
Covers 5V, 9V and 12V power rails with good transient withstand
- **Wide fixed Output Voltage variants: 3.0V, 3.3V, 4.15V, 4.4V and 5.0V**  
Covers standard I/O voltage levels
- **Low Quiescent Current at 1.8 $\mu$ A**  
Extends battery life battery operated products  
Minimizes standby power in low-power systems
- **Two pin-outs in SOT25**  
Matches industry standard footprints  
Enable function on one extends battery life even further
- **1% Output Accuracy at Room Temperature**  
Maintains accuracy under all conditions
- **Built-in Over-temperature protection (OTP) Function**  
Protects system from over-temperature conditions

## Application

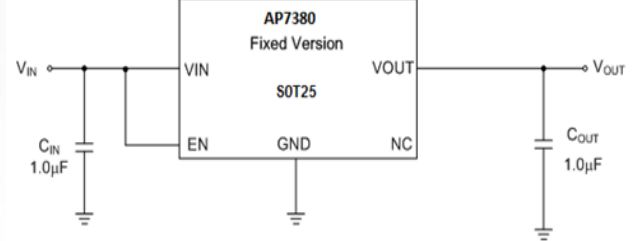
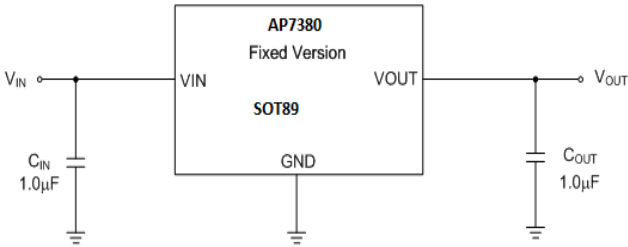
- Battery-Powered Equipment
- Portable Instrumentation
- Ruggedized PC/Tablets
- Notebook Computers
- Home Appliances
- eMeters

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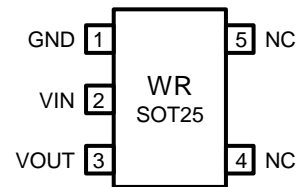
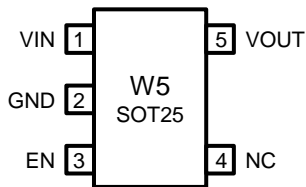
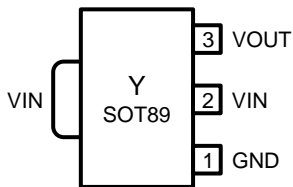


### Typical Application Circuit



### Product Portfolio

| Part Number   | V <sub>IN</sub> (V) | V <sub>OUT</sub> (V)                 | I <sub>OUT</sub> (mA) | V <sub>DROP</sub> @ Full Load (mV) | I <sub>Q</sub> (µA) | Output Accuracy (%) | Enable | BYPASS Cap | Package |
|---------------|---------------------|--------------------------------------|-----------------------|------------------------------------|---------------------|---------------------|--------|------------|---------|
| AP7380-XXY-13 | 3.5 to 24           | 3.0,<br>3.3,<br>4.15,<br>4.4,<br>5.0 | 150                   | 1,100                              | 1.8                 | 1                   | No     | No         | SOT89   |
| AP7380-XXW5-7 | 3.5 to 24           |                                      | 150                   | 1,100                              | 1.8                 | 1                   | Yes    | No         | SOT25   |
| AP7380-XXWR-7 | 3.5 to 24           |                                      | 150                   | 1,100                              | 1.8                 | 1                   | No     | No         | SOT25   |



Single Channel LDO web table:  
Datasheet:

<https://www.diodes.com/products/power-management/low-dropout-regulators/single-ldos/>  
<https://www.diodes.com/assets/Datasheets/AP7380.pdf>

### Ordering Information

