

## MIC5524

### Single High-Performance 500 mA LDO

#### General Information

The MIC5524 is a low-power, low-dropout regulator designed for optimal performance in a very-small footprint. It is capable of sourcing 500 mA of output current and only draws 38  $\mu$ A of operating current to do so. Ideal for battery-operated applications, the MIC5524 offers 2% accuracy, extremely-low dropout voltage (260 mV @ 500 mA), and can regulate output voltages down to 1.0V. The MIC5524 is a  $\mu$ Cap design, operating with very-small ceramic output capacitors for stability, reducing required board space and component cost for space-critical applications. The MIC5524 has an operating junction temperature range of  $-40^{\circ}\text{C}$  to  $125^{\circ}\text{C}$ .



#### Features

- Input voltage range: 2.5V to 5.5V
- Fixed output voltages down to 1.0V
- 500 mA guaranteed output current
- High output initial accuracy ( $\pm 1\%$ )
- High PSRR: 80 dB
- Low quiescent current: 38  $\mu$ A
- Stable with 2.2  $\mu$ F ceramic output capacitors
- Low dropout voltage: 260 mV @ 500 mA

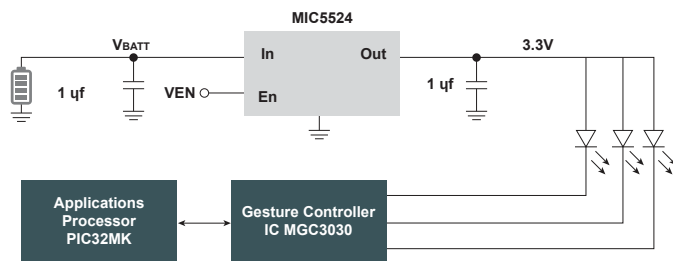
#### Applications

- Portable medical devices
- Smart devices (watch, phones, wearables)
- Portable communication equipment
- Bluetooth<sup>®</sup> earphones

#### Benefits

- Fast transient response
- High-power supply noise rejection ratio
- Auto discharge and internal enable pull down
- Thermal-shutdown and current-limit protection

#### MIC5524 Block Diagram



Smartphones and portable applications (GPS, Entertainment systems) now have Gesture Controllers to control certain features of the end applications



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