

## FEATURES

- 2.5V to 6.5V Input Voltage Range
- High Efficiency: Up to 95% (@3.3VOUT)
- 1.2MHz Switching Frequency
- Ultra-low Quiescent Current: 3μA typical.
- Low Shutdown Current: <1μA
- PFM Mode for High Efficiency in Light Load
- Up to 0.8A Output Current
- Output Voltage as Low as 0.6V
- 100% Duty Cycle in Dropout Operation
- LX discharge function
- Short Circuit Protection
- Thermal Fault Protection
- Inrush Current Limit and Soft Start
- Input over voltage protection (OVP)
- Power Good Function in TCS4108
- <1μA Shutdown Current
- TCS4108: SOT23-6 Package
- TCS4108A: SOT23-5 Package

## GENERAL DESCRIPTION

TCS4108 and TCS4108A are 1.2MHz switching frequency, 3μA ultra-low quiescent current, current mode buck converter with power good indication function. TCS4108 has a wide input voltage range from 2.5V to 6.5V. The device adopts peak current mode control, the output voltage can be adjusted from 0.6V to input voltage. It has fast load transient response. The 1.2MHz high switching frequency minimizes the size of external components while keeping switching losses low. It has two operating modes, PWM control and PFM mode switching control in different load condition, and allowing high efficiency over a larger load range.

## APPLICATIONS

- Battery-Powered Application
- IoT Modules
- Wearable Device
- Intelligent Lock

## TYPICAL APPLICATION

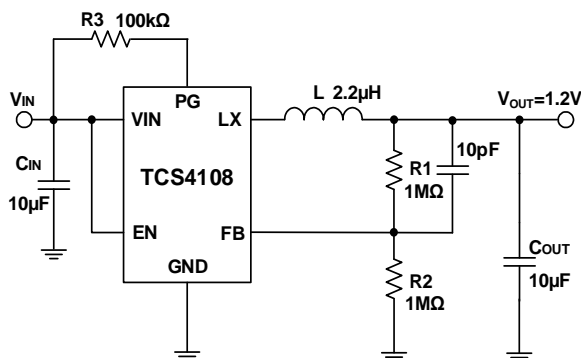


Figure 1. Basic Application Circuit

### Efficiency

$V_{OUT}=1.2V$ ,  $L=2.2\mu H$ ,  $T_A=25^\circ C$ ,  $I_o=10\mu A$  to 0.8A

