

38V Synchronous Buck Converter With CC/CV

Features

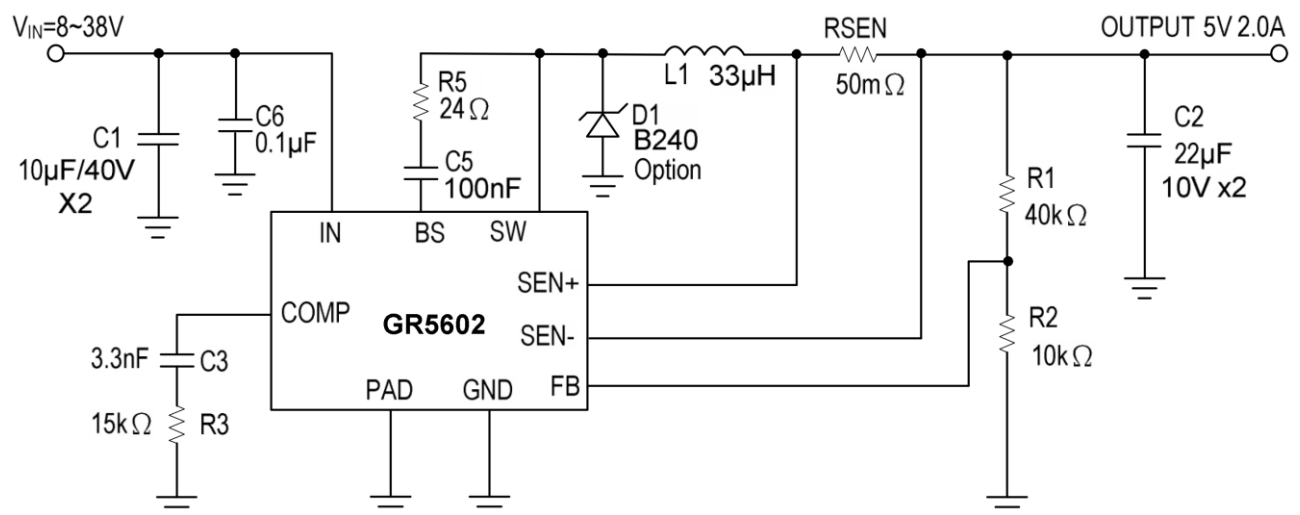
- Wide 8V to 38V Operating Input Range
- Integrated 140mΩ Power MOSFET Switches
- Output Adjustable from VFB(1V) to 5.5V
- Up to 92% Efficiency
- Internal Soft-Start
- Stable with Low ESR Ceramic Output Capacitors
- Fixed 160KHz Frequency
- Cycle-by-Cycle Over Current Protection
- Input Under/Over Voltage Lockout

Description

GR5602 is a wide input voltage, high efficiency Active CC step-down DC/DC converter that operates in either CV (Constant Output Voltage) mode or CC (Constant Output Current) mode. GR5602 provides up to 2.5A output current at 160kHz switching frequency. Current mode control provides fast transient response and cycle-by-cycle current limit.

An internal soft-start prevents inrush current at turn-on. This device, available in an SOP8-EP(Exposed pad) package, provides a very compact solution with minimal external components.

Application Circuit



$$V_{OUT} = V_{FB} \times (1 + R1/R2), V_{FB} = 1.00V, R2 \text{ suggest } 10k \sim 30K\Omega$$

$$I_{SEN} \doteq 2.0A(R_{SEN}=50m\Omega)$$