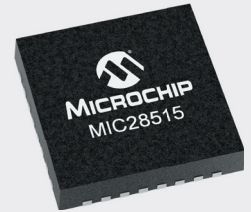


MIC28515

75V/5A DC-DC Switching Buck Regulator with Mode Select

General Information

The MIC28515 is an adjustable frequency, synchronous buck regulator that features a unique adaptive on-time control architecture. The MIC28515 operates over an input supply range of 4.5V to 75V, and provides a regulated output of up to 5A of output current. The output voltage is adjustable down to 0.6V with an accuracy of $\pm 1\%$. The MIC28515 offers a 'Mode' select pin allowing the user to choose between Hyper Light load and Hyper Speed control operations. It also offers a full suite of protection features to ensure safe operation of the device during fault conditions. These include UVLO, External soft start to reduce current inrush, hiccup current limit short circuit protection and thermal shutdown.



Features

- Hyper Speed Control[®] architecture enables:
 - High input-to-output voltage conversion ratio capability
 - Small output capacitance
- 4.5V to 75V input voltage
- 5A output current capability with up to 95% efficiency
- Adjustable output voltage from 0.6V to 32V
- $\pm 1\%$ FB Accuracy
- Any Capacitor[™] stable: zero-ESR to high-ESR output capacitors
- 270 kHz to 800 kHz adjustable switching frequency
- Built-in 5V regulator for single-supply operation
- Compact size 6 x 6 mm PQFN
- -40°C to $+125^{\circ}\text{C}$ junction temperature range

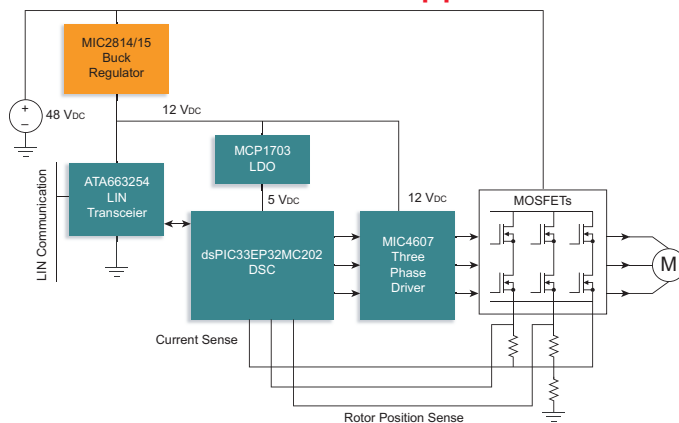
Applications

- Distributed power systems
- Communications/networking infrastructure
- Industrial power supplies
- Solar energy

Benefits

- 75V voltage rating adds additional safety margin and protection against input transients and spikes, thereby minimizing system failure risk
- Complete high power switching regulator in a thermally enhanced, small 6 x 6 mm VQFN package helps reduce external components and overall bill of materials cost
- Full suite of protection features helps ensure safe operation of the device during fault conditions

48V BLDC Radiator Fan Application



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