48V – 12V DCM37xx Series

Non-Isolated, Regulated, DC-DC Converter Module

An ideal solution for customers integrating new 48V technologies with existing 12V solutions

Description

The DCM3717 and DCM3735 are non-isolated, regulated DC-DC converter modules that operate from a semi-regulated 40 – 60V input to generate a regulated point-of-load output with a voltage range of 10.0 – 12.5V. The DCM3717 and DCM3735 in the SM-ChiP™ package configuration utilizes the Vicor patented zero-voltage switching (ZVS) buck-boost regulator stage followed by the Sine Amplitude Converter (SAC™).

Leveraging Vicor SM-ChiP packaging technology, the DCM offers flexible thermal management options with low top- and bottom-side thermal impedances. Thermally adept SM-ChiP-based power components enable customers to achieve low-cost power system solutions with previously unattainable system size, weight and efficiency attributes quickly and predictably.

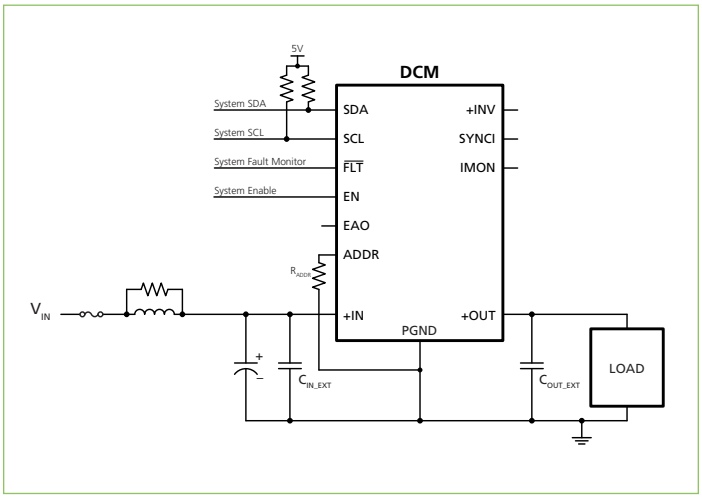
Features & Benefits

- Wide input range 40 – 60V_{DC}
- Trimmable output range 10.0 – 12.5V_{DC}
- >1MHz switching frequency
- PMBus® compatible telemetry
- Internal voltage, current and temperature shut down
- Array configuration of up to four units

Applications

- High-Performance Computing Systems (HPC)
- Industrial Systems
- Electric Vehicles
  (DCM3735 automotive grade also available)

DCM37xx Typical Application





DCM3717 SM-ChiP
36.7 x 17.3 x 5.2mm



DCM3735 SM-ChiP
36.7 x 35.4 x 5.2mm

Part Numbers

Part Number	Input Voltage (V)	Output Voltage (V)	Output Power (W)	Peak Efficiency (%)
DCM3717S60E13G5TN1	54 (40 – 60)	12.2 (10 – 12.5)	750	96.5
DCM3717S60D13K0TN1			1000	
DCM3735S60D13L0TN1			2000	96.4

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