

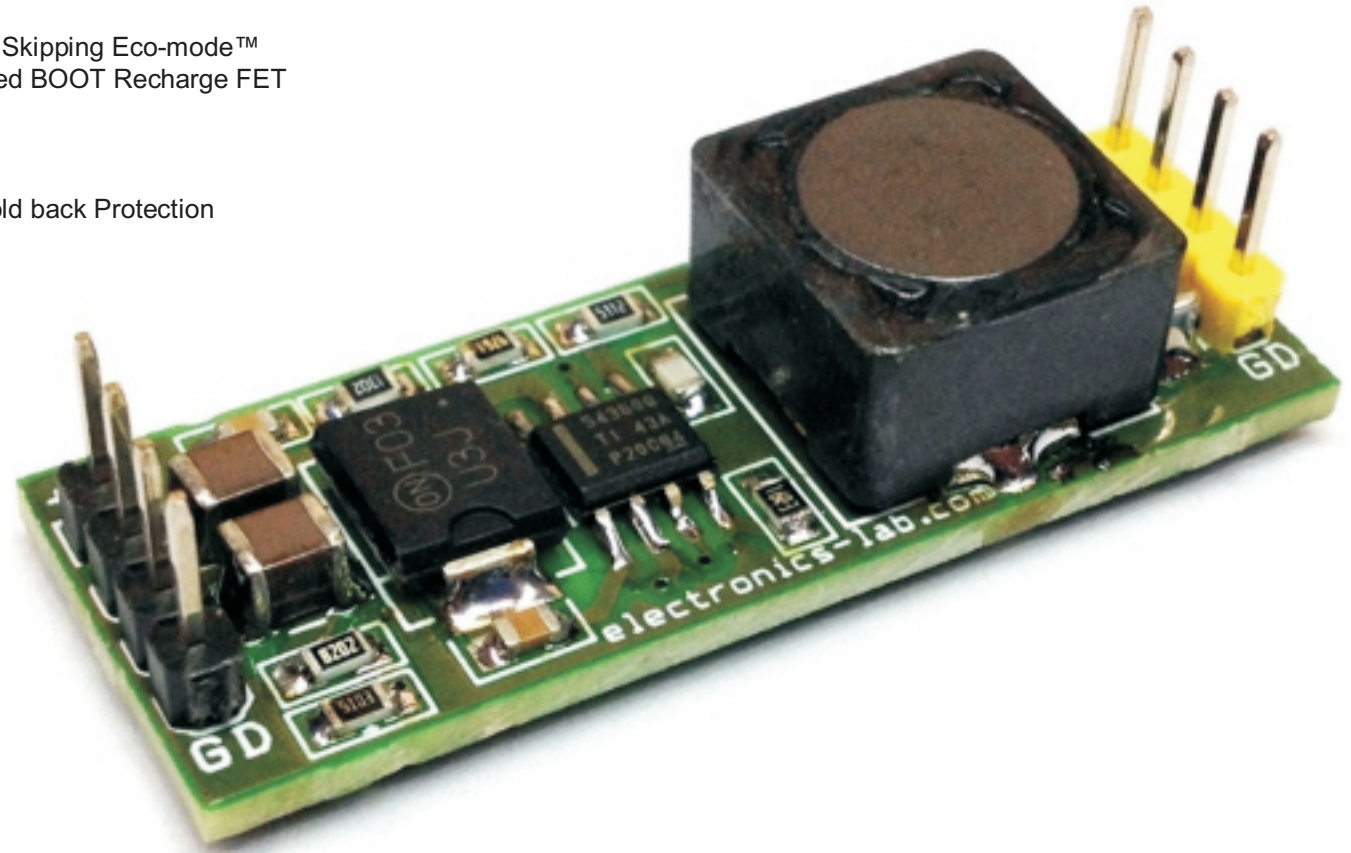
60V-3A IN 5V OUTPUT DC-DC CONVERTER FOR INDUSTRIAL AND AUTOMOTIVE

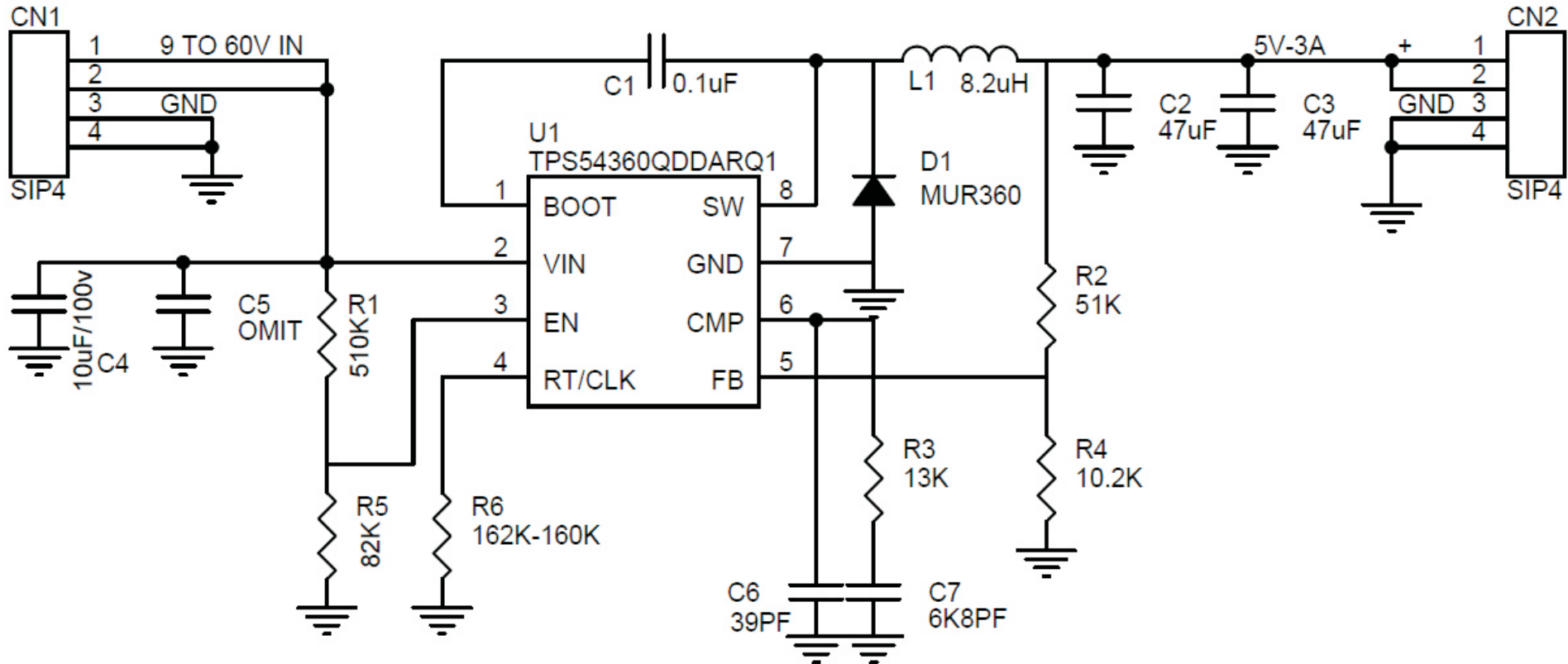
60 V 3A step down DC-DC converter Idea applications are: 12 V, 24 V and 48 V Industrial, Automotive and Communications Power Systems. The TPS54360 is a 60 V, 3 A, step down regulator with an integrated high side MOSFET. The device survives load dump pulses up to 65V per ISO 7637. Current mode control provides simple external compensation and flexible component selection. A low ripple pulse skip mode reduces the no load supply current to 146 μ A. Shutdown supply current is reduced to 2 μ A when the enable pin is pulled low. Under voltage lockout is internally set at 4.3 V but can be increased using the enable pin. The output voltage start up ramp is internally controlled to provide a controlled start up and eliminate overshoot. A wide switching frequency range allows either efficiency or external component size to be optimized. Frequency fold back and thermal shutdown protects internal and external components during an overload condition.

Note: The output voltage is set by a resistor divider from the output node to the FB terminal. It is recommended to use 1% tolerance or better divider resistors, choose R2, R4 for other output voltage.

Features

- Supply Input 9V-60V
- Output 5V (Output Voltage adjustable Alter R2, R4)
- Output Current 3A
- Current Mode Control DC-DC Converter
- High Efficiency at Light Loads with Pulse Skipping Eco-mode™
- Low Dropout at Light Loads with Integrated BOOT Recharge FET
- 146 μ A Operating Quiescent Current
- Internal Soft-Start
- Accurate Cycle-by-Cycle Current Limit
- Thermal, Overvoltage, and Frequency Fold back Protection







BOM			
SR.	QNTY	REF.	DESC.
1	2	CN1,CN2	4 PIN HEADER CONNECTOR
2	1	C1	0.1uF SMD 0805
3	2	C2,C3	47uF/10V SMD 1210
4	1	C4	10uF/80V SMD 1210
5	1	C5	OMIT
6	1	C6	39PF SMD 0805
7	1	C7	6K8PF SMD 0805
8	1	D1	MUR360 ON SEMI
9	1	L1	8.2uH/3A SMD 12MMX12MM
10	1	R1	510K SMD 0805
11	1	R2	51K SMD 0805
12	1	R3	13K SMD 0805
13	1	R4	10.2K SMD 0805
14	1	R5	82K SMD 0805
15	1	R6	160K SMD 0805
16	1	U1	TPS54360QDDARQ1 TEXAS

