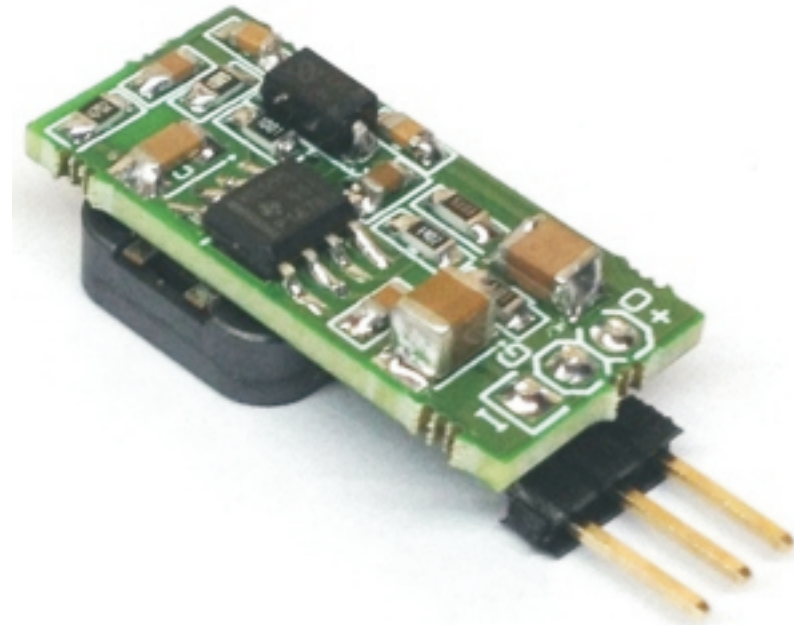


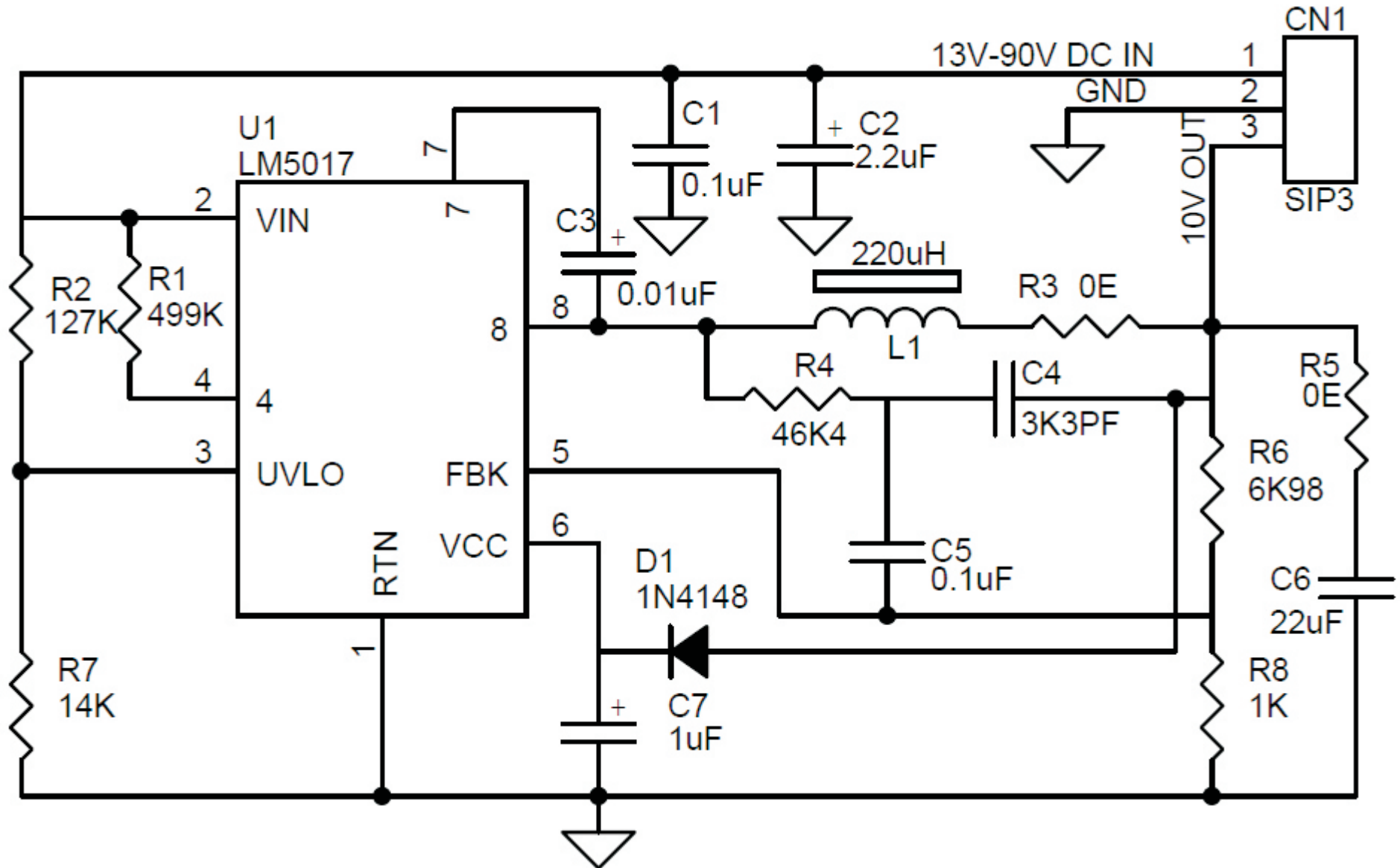
## HIGH VOLTAGE DC-DC BUCK CONVERTER

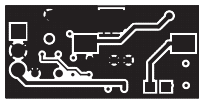
Versatile tiny module provides 10V/500mA from 90V DC input, its high voltage input DC-DC buck converter, based on LM5017 IC, which is a 100-V, 600-mA synchronous step-down regulator with integrated high side and low side MOSFETs. The constant on-time (COT) control scheme employed in the LM5017 requires no loop compensation, provides excellent transient response, and enables very high step-down ratios. The on-time varies inversely with the input voltage resulting in nearly constant frequency over the input voltage range. A high voltage startup regulator provides bias power for internal operation of the IC and for integrated gate drivers. A peak current limit circuit protects against overload conditions. The under-voltage lockout (UVLO) circuit allows the input under-voltage threshold and hysteresis to be independently programmed. Other protection features include thermal shutdown and bias supply under-voltage lockout (VCC UVLO). Supply input range 13V to 90V, provides 10V/500mA, switching frequency 225 KHz. Adjustable output voltage possible by altering Resistor R6 and R8 value, refer data sheet. Under-Voltage lockout set to 12.4V.

### Features

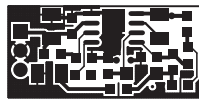
- Wide 13V to 90V Input Range
- Output 10V 500MA (Adjustable Output Voltage from 1.225 V)
- Integrated 100-V High-Side, and Low-Side Switches
- Constant On-Time Control
- No Loop Compensation Required
- Ultra-Fast Transient Response
- Nearly Constant Operating Frequency
- Intelligent Peak Current Limit
- Precision 2% Feedback Reference
- Frequency 225Khz (Adjustable to 1 MHz)
- Adjustable Under voltage Lockout (UVLO) (Set to 12.4V)
- Thermal Shutdown
- PCB Dimensions 25.44 MM X 12.05 MM



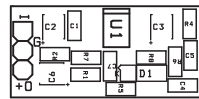




BOTTOM LAYER



TOP LAYER

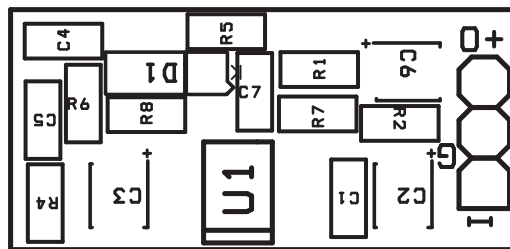


SILK SCREEN TOP



SILK SCREEN BOTTOM

PCB DIMENSIONS 25.44MM X 12.05 MM



10V OUT PUT  
GND  
13-90V DC INPUT

BOM			
SR.	QNTY.	REF.	DESC.
1	1	CN1	3 PIN HEADER CONNECTOR
2	2	C1,C5	0.1uF SMD 0805
3	1	C2	2.2uF 100V SMD 1210
4	1	C3	0.01uF SMD 1206
5	1	C4	3K3PF SMD 0805
6	1	C6	22uF 16V SMD 1210
7	1	C7	1uF SMD 0805
8	1	D1	1N4148 SMD
9	1	L1	220uH 1A 12MM
10	1	R1	499K SMD 0805
11	1	R2	127K SMD 0805
12	2	R3,R5	0E SMD 0805
13	1	R4	46K4 SMD 0805
14	1	R6	6K98 SMD 0805
15	1	R7	14K SMD 0805
16	1	R8	1K SMD 0805
17	1	U1	LM5017 SMD SO8