



LED Driver Design with AP3766 _4V/600mA

Summary and Features :

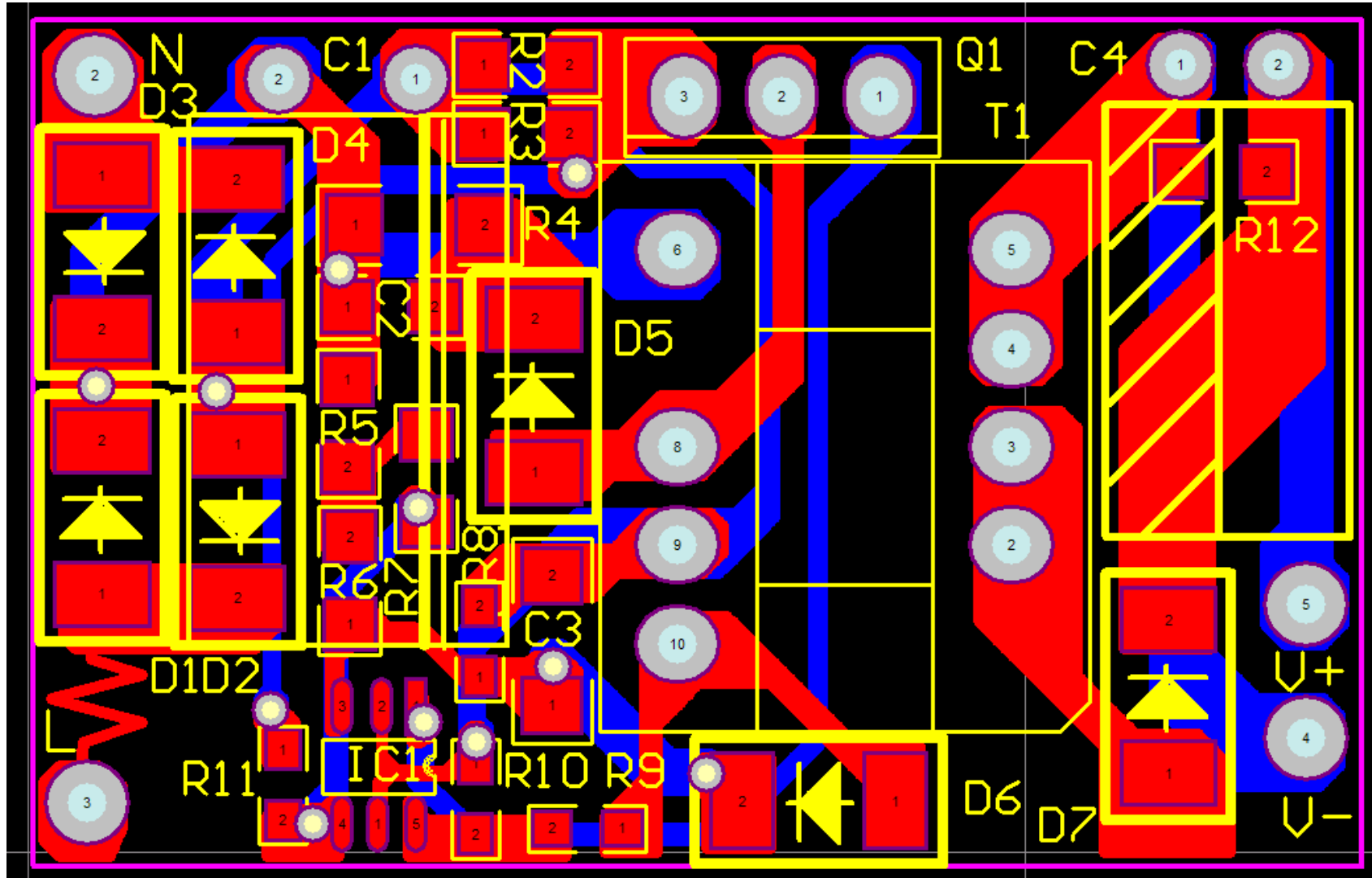
1. LED driver, 1x1W, 4V, 0.6A ; Wide AC input range: 90Vac-264Vac
2. For Isolated Applications
3. High Efficiency and Least Parts Solution
4. Fully Protection Against AC input UV/OV,O/P Short &Open, Component single fault



2011-09-04 Prepared By: James

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1.PCB Layout _ 4V600mA



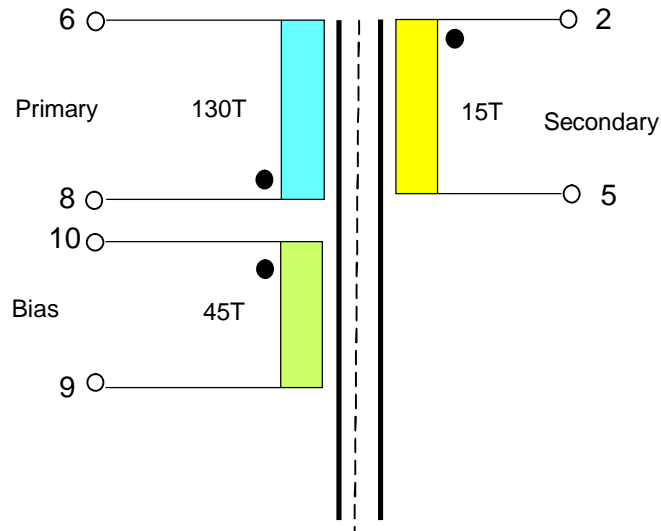
2.Bom _ 4V 600mA

		code		
Electrical part				
1	Transistor NPN APT13003L TO-92	Q1	1	BCD SEMI
2	IC, PWM,AP3766 SOT23-6	U1	1	BCD SEMI
3	Diode Rectifier .1000V,1A 1N4007,SMA	D1 , D2 , D3 , D4 , D6	5	
5	Shottoky 60V/2A ,SS26 ,SMA	D7	1	
6	Resistor,1Mohm,5%,0805	R5,R6	2	
7	Resistor,1Mohm,5%,0603	R8	1	
8	Resistor,3.9ohm,1%,0805	R2 , R3	2	
9	Resistor,3M ohm,5%,,0805	R7	1	
10	Resistor,3.9Kohm,1%,0805	R10	1	
11	Resistor,2.2Kohm,1%,0603	R11	1	
12	Resistor,12Kohm,5%,0603	R9	1	
13	Resistor,4.7Kohm,5%,0805	R12	1	
15	Capacitor Electrolytic,4.7uF/400V,8x12mm	C1	1	
17	Capacitor Electrolytic,100uF/16V,6.3x11mm	C4	1	
18	Capacitor Ceramic 4.7UF/25V 1206	C3	1	
19	Transformer EE13 5+5 立式	TR1	1	
20	PCB FR-4 34*21.5mm	PCB	1	
Total			23	

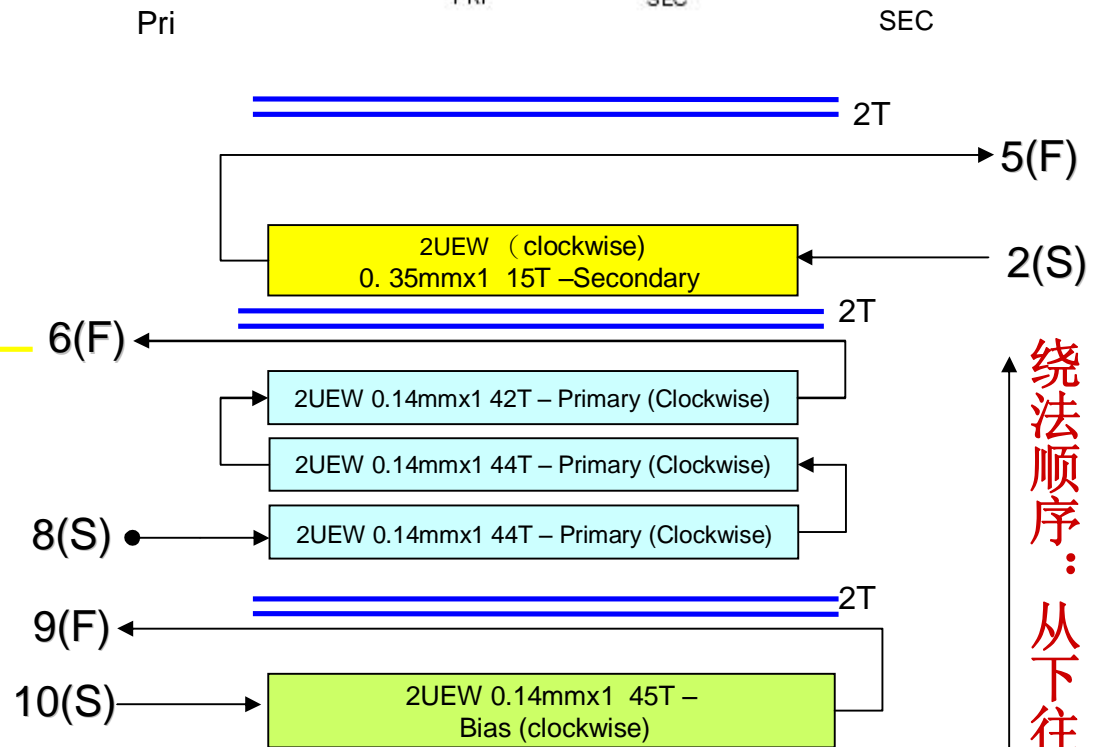
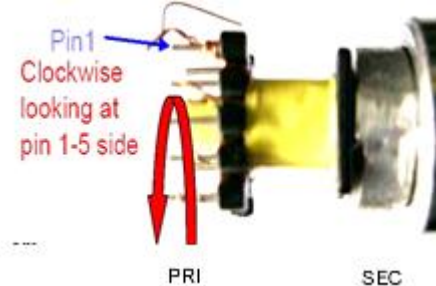


3. transformer drawing _ 4V 600mA

SCHEMATIC



Instruction for start of first winding...



绕法顺序：从下往上

ELECTRICAL SPECIFICATIONS:

1. Primary Inductance (Lp) = **1.8 mH** @1KHz
2. Electrical Strength = 3KV, 50/60Hz, 1Min

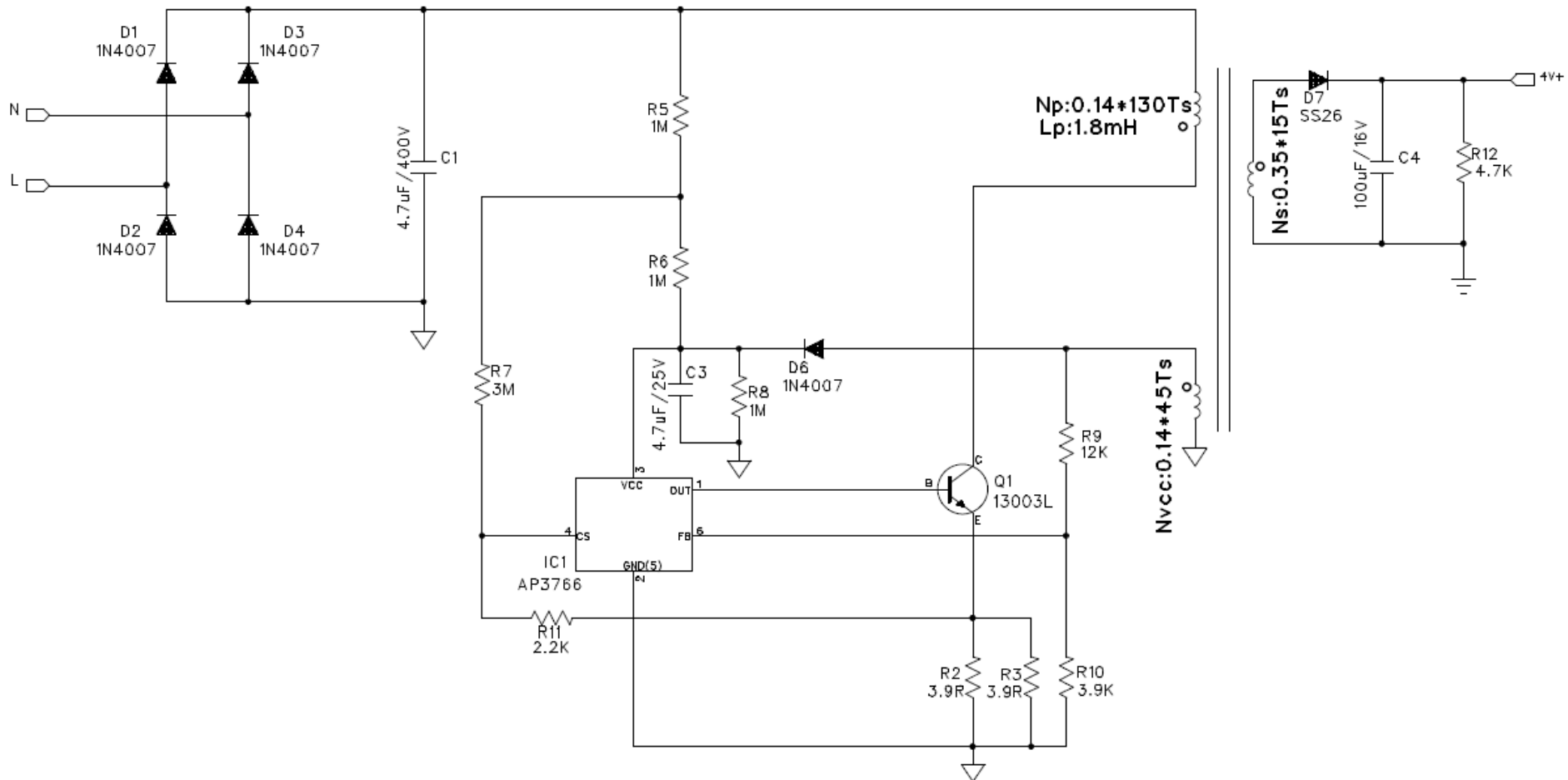
MATERIALS:

1. Core : EE13 (Ferrite Material TDK PC40 or equivalent)
2. Bobbin : EE13(5+5pin) Horizontal.
3. Magnet Wires (Pri) : Type 2-UEW
4. Magnet Wire (Sec) : Type 2-UEW
5. Layer Insulation Tape :3M1298 or equivalent.

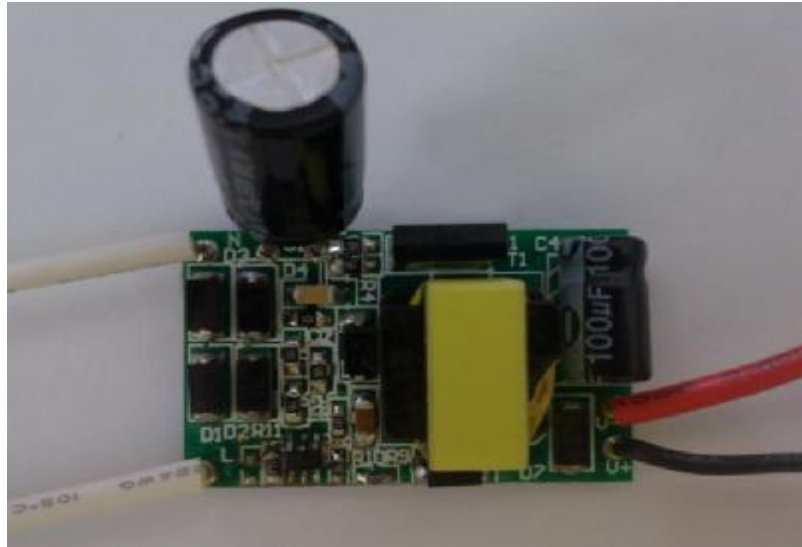
FINISHED :

1. Cut Pin1 and 7
2. Varnish the complete assembly

4. Schematic circuit _ 4V600mA

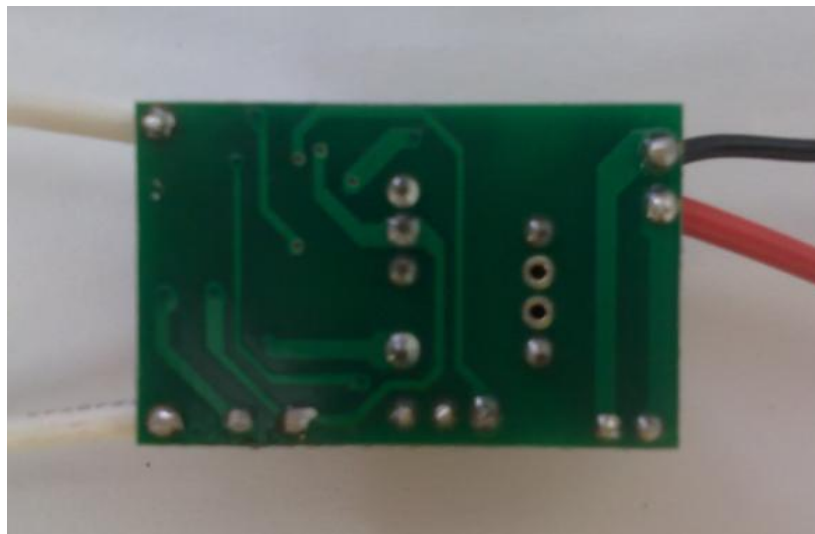


5.Photo _ 4V600mA



Top side

Size: 34*21.5mm



Bottom side