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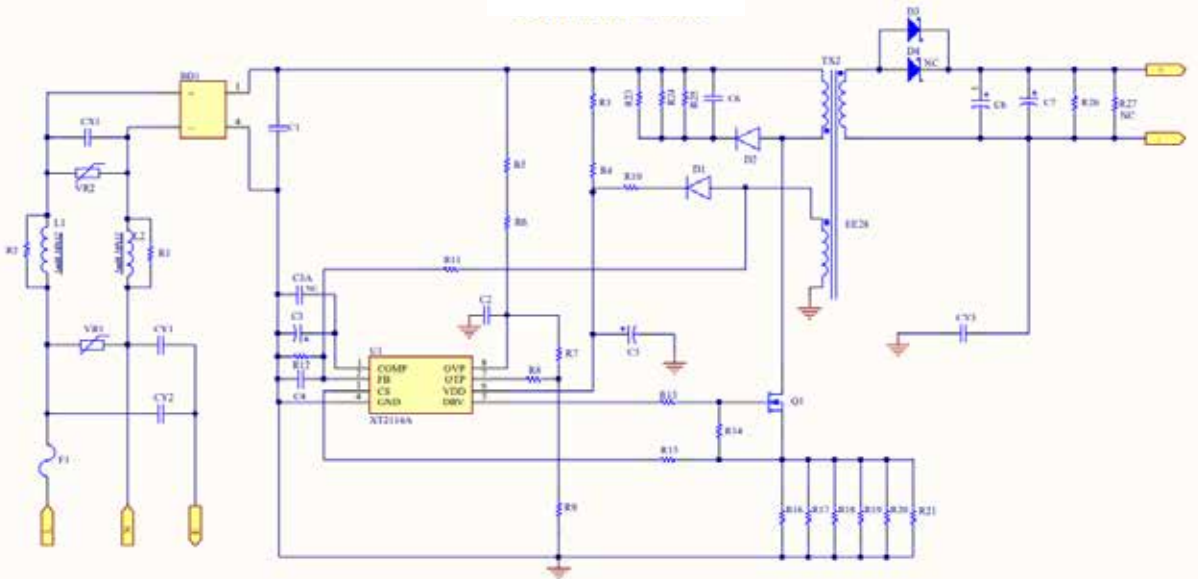
40W-700mA INBUILT OVP UVP SOLUTION



General Specification

Solution	XT2114A
AC Input	95~325VAC
DC Output	52V/0.7A
Efficiency	> 90%@ 230VAC
Power Factor	0.99 @ 52V 0.700A
Over Voltage Cutoff	> 325VAC
Under Voltage Cutoff	< 95VAC
Max. Withstanding Voltage	440VAC
Surge	4KV

Schematic



Bill Of Material

SR. NO.	PART	DESCRIPTION	SCHEMATIC REFERENCE	QUANTITY
1	IC	XT2114A	U1	1
2	MOV	14D621K	VR1,VR2	2
3	FUSE	5A 250V	F1	1
4	CAPACITOR	0.22uF/630V 10mm MPP	C1	1
5	CAPACITOR	0.1uF/310V 10mm X2	CX1	1
6	ELCO	10uF/50V 5-8Khrs 105°C 5*11mm	C5	1
7	ELCO	1uF/50V 5-8Khrs 105°C 5*11mm	C3	1
8	ELCO	220uF/100V 5-8Khrs 105°C 13*21mm	C6,C7	2
9	SMD CAPACITOR	22pF/50V 1206 X7R 10%	C4	1
10	SMD CAPACITOR	10nF/50V 1206 X7R 10%	C2	1
11	CERAMIC CAPACITOR	CERAMIC 2.2nF/1KV 5mm	C6	1
12	Y1 CAPACITOR	2.2nF/500V 10mm Y1	CY1,CY2,CY3	3
13	BRIDGE RECTIFIER	DB207S	BD1	1
14	DIODE	SF56	D3	1
15	SMD DIODE	US1M	D1	1
16	SMD DIODE	RS1M	D2	1
17	SMD RESISTOR	5.1K 1206 1%	R1,R2	2
18	SMD RESISTOR	300K 1206 1%	R3,R4,R23,R24,R25	5
19	SMD RESISTOR	820K 1206 1%	R5	1
20	SMD RESISTOR	270K 1206 1%	R6	1
21	SMD RESISTOR	2.7K 1206 1%	R7	1
22	SMD RESISTOR	10K 1206 1%	R8	1
23	SMD RESISTOR	5.1K 1206 1%	R9	1
24	SMD RESISTOR	47R 1206 1%	R10	1
25	SMD RESISTOR	68K 1206 1%	R11	1
26	SMD RESISTOR	10K 1206 1%	R12,R14	2
27	SMD RESISTOR	10R 1206 1%	R13	1
28	SMD RESISTOR	100R 1206 1%	R15	1
29	SMD RESISTOR	2.2R 1206 1%	R16,R17,R18,R19,R20	5
30	SMD RESISTOR	1R 1206 1%	R21	1
31	SMD RESISTOR	47K 1206 1%	R26	1
32	MOSFET	7N80	Q1	1
33	DRUM INDUCTOR	1mH 10*12mm	L1,L2	2
34	TRANSFORMER	EE28	Tx2	1
			TOTAL	49

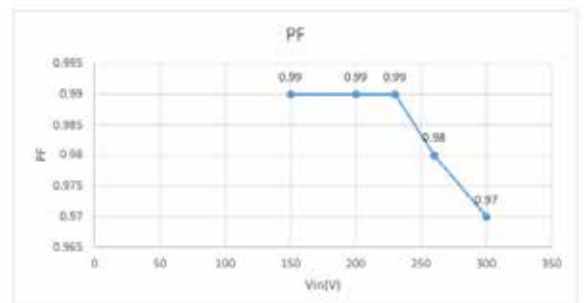
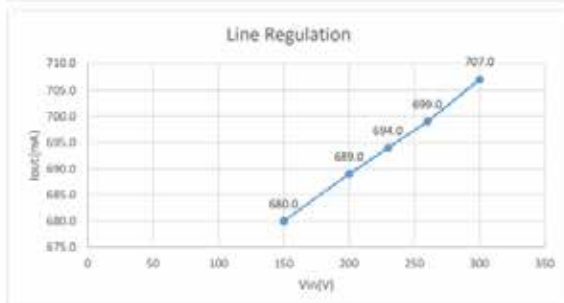
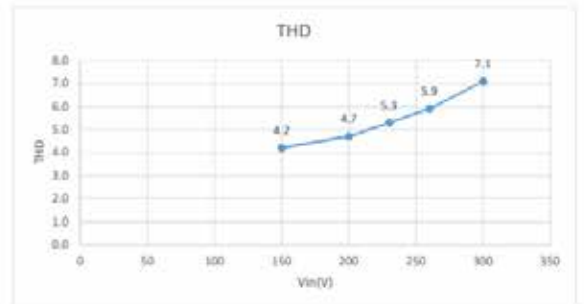
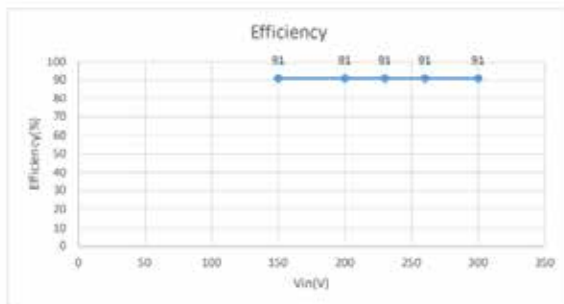
Electricals Parameters

AC REGULATION									
S.No.	Vin(V)	Iin(mA)	Pin(W)	PF	I THD	Vout(V)	Iout(mA)	Pout(W)	Efficiency(%)
1	150	250.00	37.73	0.99	4.2	50.33	680.0	34.23	91
2	200	189.00	37.90	0.99	4.7	50.33	689.0	34.67	91
3	230	168.00	38.21	0.99	5.3	50.33	694.0	34.91	91
4	260	150.00	38.56	0.98	5.9	50.33	699.0	35.39	91
5	300	133.00	39.12	0.97	7.1	50.33	707.0	35.8	91

DC REGULATION @230Vac									
S.No.	Vin(V)	Iin(mA)	Pin(W)	PF	I THD	Vout(V)	Iout(mA)	Pout(W)	Efficiency(%)
1	230	168.00	38.21	0.99		50.33	694.0	34.91	91
2	230	143.1	32.46	0.99		42.27	704.4	29.7	91

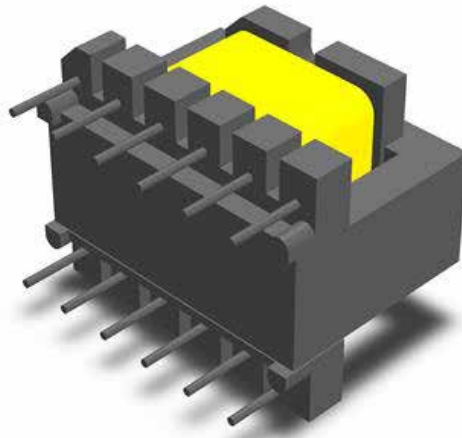
NO LOAD VOLTAGE : 62VDC
HIGH CUT-OFF VOLTAGE : 325Vac
LOW CUT-OFF VOLTAGE : 95Vac

Graphical Representation

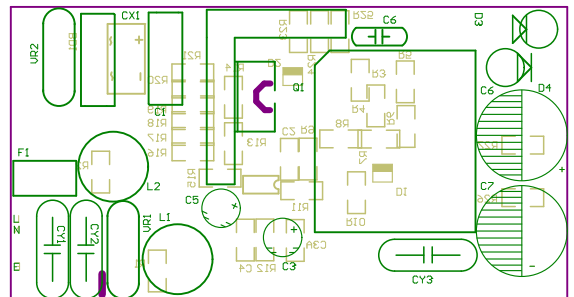
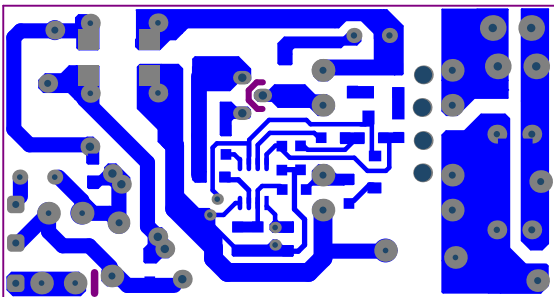


Inductor Details

CORE EE28(5+5)VERTICAL					
	WINDING	TURNS	PIN	WIRE GAUGE(SWG)	INDUCTANCE
	NP1	26	2--3	33*3	PRI INDUCTANCE (PIN 1-2) 0.44mH
	NS1	28	10/9--7/6	33*4	
	NP2	25	3--1	33*3	
	NA	12	4--5	33*2	



PCB layout



Surge Report

SURGE VOLTAGE	ANGLE	POSITIVE/NEGATIVE	NO. OF PULSE	INTERVAL(SEC)	PASS/FAIL	
3KV	0	+	5	40	PASS	
		-	5	40	PASS	
	90	+	5	40	PASS	
		-	5	40	PASS	
	180	+	5	40	PASS	
		-	5	40	PASS	
	270	+	5	40	PASS	
		-	5	40	PASS	
	3.5KV	0	+	5	40	PASS
			-	5	40	PASS
		90	+	5	40	PASS
			-	5	40	PASS
180		+	5	40	PASS	
		-	5	40	PASS	
270		+	5	40	PASS	
		-	5	40	PASS	
4KV		0	+	5	40	PASS
			-	5	40	PASS
		90	+	5	40	PASS
			-	5	40	PASS
	180	+	5	40	PASS	
		-	5	40	PASS	
	270	+	5	40	PASS	
		-	5	40	PASS	