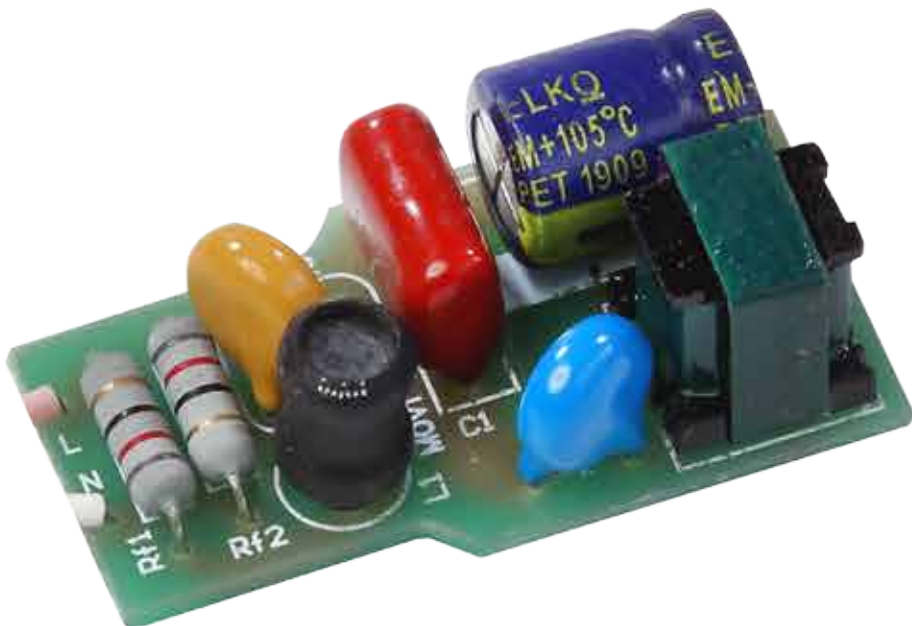




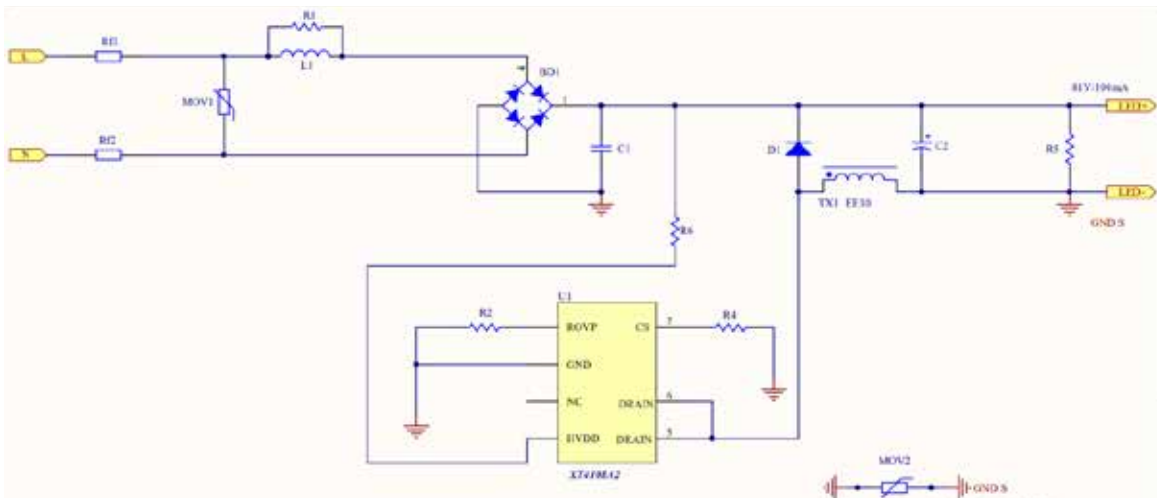
# 9W-81V/100mA BULB DRIVER



## General Specification

Solution	XT4108A2
AC Input	90~300VAC
DC Output	45-81V/0.1A
Efficiency	>88%@230VAC
Power Factor	0.99 @81V 0.1A
Over Voltage Foldback	> 300VAC
Under Voltage Foldback	<165VAC
Max. Withstanding Voltage	440VAC
Surge	4KV

## Schematic



## Bill Of Material

SR. NO.	PART	DESCRIPTION	SCHEMATIC REFERENCE	QUANTITY
1	MOV	7D621K	MOV1	1
2	MOV	7D511K	MOV2	1
3	POLY CAP	47nF/630V 10mm	C1	1
4	FUSE	82R/TH 1W	RF1,RF2	2
5	BRIDGE RECFR	MB10F	BD1	1
6	ELCO	68uF/100V	C2	1
7	DIODE	ES1JF	D1	1
8	RESISTOR	5.1K 1206 5%	R1	1
9	RESISTOR	300K 1206 1%	R2,R5	2
10	RESISTOR	2R 1206 1%	R4	1
11	RESISTOR	22K 1206 5%	R6	1
12	IC	XT4108A2	U1	1
13	TX	EE10(2+2)	L1	1
14	DRUM INDUCTOR	6X8mm 5mH	L2	1
			TOTAL	16

## Electricals Parameters

### AC REGULATION

AC/V	AC/I (mA)	AC/W	PF	THD	DC/V	DC/I (mA)	DC/W	EFF(%)
150	37.4	5.5	0.96	21	81.39	59.8	4.8	87
230	39.43	8.8	0.97	14	81.39	96	7.8	88
260	35	8.9	0.97	15	81.39	96.57	7.8	88
300	30.67	9	0.97	17	81.39	97.35	7.9	87

### DC REGULATION@230

230	39.43	8.8	0.97		81.39	96	7.8	88
	32	7.1	0.97		65	96.33	6.3	87
	29.21	6.6	0.98		60	96.44	5.8	87

FOLDBACK VOLTAGE : 185Vac

NO LOAD VOLTAGE : 90V

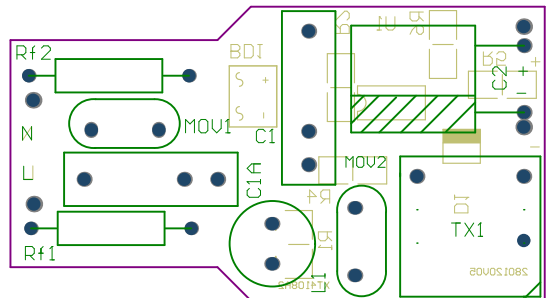
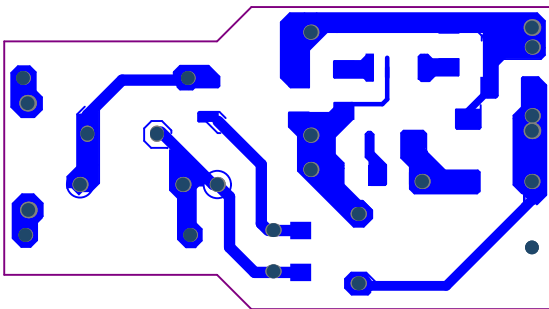


## Inductor Details

CORE EE10(4+4)					
WINDING	TURNS	PIN	WIRE GAUGE(SWG/mm)	INDUCTANCE	
N1	269	4-5	0.18mm	PRI INDUCTANCE (PIN 4-5) 2.1mH	



## 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	