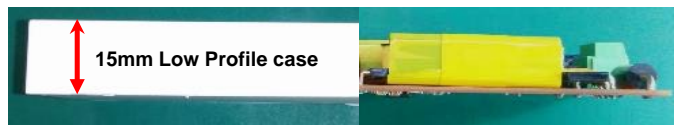
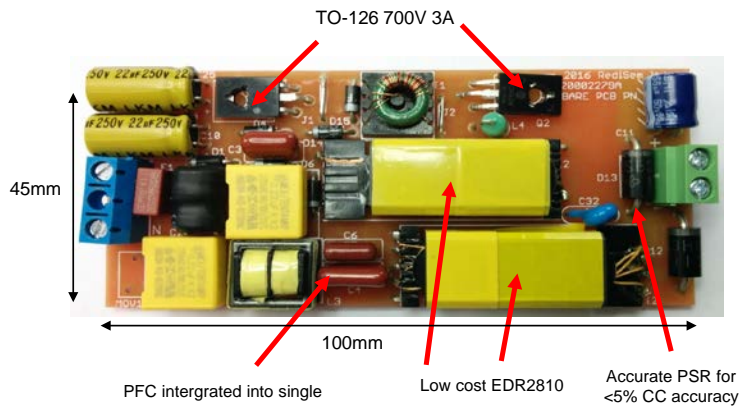




Redisem 42W 1A LED Low Profile Driver



RediSem IC	RED2511 SO8 LLC LED Driver IC
Output Power	42W
Output Current	1000mA Constant Current
Line regulation	1% (198 - 264VAC)
Load Regulation	0.5% (42 - 30V)
Output Voltage range	42 - 30V
Low Freq. Ripple	2.0% @ 230V full load
Efficiency	90.4% @ 230V full load
Input	198-264VAC, 50Hz
Survive input range	170 - 320VAC
PF	0.97 @ 230V full load
THD	6.5% @ 230V full load
Time to Light	80ms
Size	100mm x 45mm x 13mm components and PCB
Protection	Short circuit, Open Circuit, Over temperature, SELV
Converter	Dual boost PPFC CC LLC converter
Component Count	52



Redisem 42W 1A LED Low Profile Driver

Input voltage	198V		230V		264V	
Input Power	33.89	45.80	34.17	46.21	34.43	46.63
Output Power	29.82	41.33	29.97	41.79	30.09	42.13
Output Voltage	30.00	42.00	30.00	42.00	30.00	42.00
Output current	994mA	984mA	999mA	995mA	1003mA	1003mA
Efficiency	87.99%	90.24%	87.71%	90.43%	87.39%	90.34%
Power Factor	0.97	0.97	0.95	0.97	0.92	0.95
THD	7.4%	15.0%	13.1%	6.5%	22.2%	12.0%

Test	Result	Condition
Peak no-load Voltage	49.00V	230VAC
Load Regulation 42 - 30V	0.40%	230VAC
Time To light	80ms	230VAC

Line regulation

input voltage	198V	264V
output current regulation at 42V	-1.12%	0.80%
output current regulation at 30V	-0.50%	0.40%

Low Frequency Visible Current Ripple

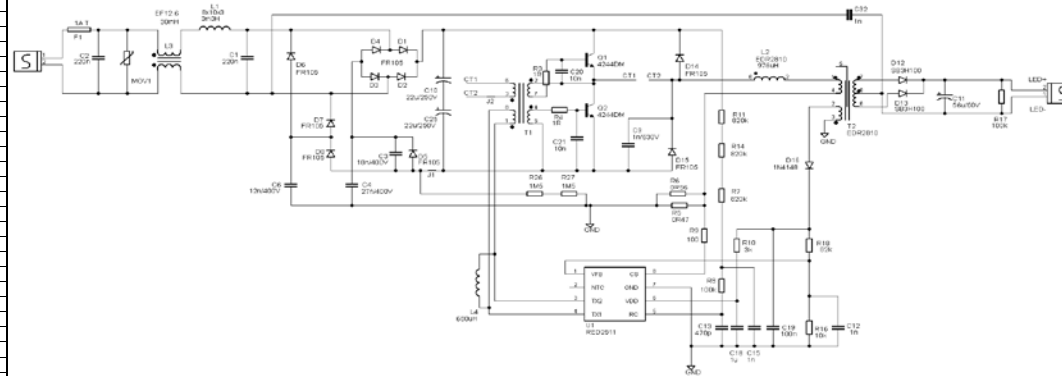
output voltage	30V	42V
output current (pk-pk)	30mA	39mA
output current ripple	1.50%	1.96%

Thermal Results (cased)	198V 42V	264V 30V
Ta	50.0C	50.0C
Q1	87.0C	93.2C
Q2	91.2C	104.6C
L2 core	102.1C	115.0C
L2 winding	103.1C	112.2C
T2 core	98.4C	93.3C
T2 winding	102.2C	86.6C



Redisem 42W 1A LED Low Profile Driver

Code	Value	Description	Qty	Supplier	Part no.
C1,2	220n	X2 MKP 20% 275VAC	2		
C3	18n	MKP 5% 400VDC	1	Fara	
C4	27n	MKP 5% 400VDC	1	Fara	
C6	12n	MKP 5% 400VDC	1	Fara	
C10,25	22u	ELEC 20% 250VDC	2	Ymin	
C11	56u	ELEC 20% 50VDC	1	Aishi Rj range	
C9	1n	1206 NPO 5% 630VDC	1	Murata	
C12	1n	0805 X7R 10% 25VDC	3		
C18	1u	0805 X7R 10% 16VDC	1		
C19	100n	0805 X7R 10% 50VDC	1		
C32	1n	Y-CAP	1		
D1,2,3,4,5,6,7,8,14,15	FR105	Fast Diode 600VDC	10	TSC/Galaxy	
D12,D13	SB3H100	Schottky Diode, 100V 3A	2		
D16	LL4148	MiniMELF	1		
F1	1A	Fuse 1A T	1		
L1	3m3	8x10 Drum Core	1		
L2	976uH	Main Inductor EDR2810	1		
L3	30mH	EF12.6 common mode	1		
L4	680uH	0410 0.25W Axial	1		
R3,4	1R	0805 0.06W 1.0%	2		
R5	0R56	0805 0.06W 1.0%	1		
R6	0R47	0805 0.06W 1.0%	1		
R9	100R	0805 0.06W 1.0%	1		
R10	3k	0805 0.06W 1.0%	1		
R7,11,14,	820k	1206 0.125W 1.0%	3		
R26,27	1M5	1206 0.125W 1.0%	2		
R16	10k	0805 0.06W 1.0%	1		
R17	100k	1206 0.125W 1.0%	1		
R18	82k	0805 0.06W 1.0%	1		
Q1,Q2	3DD4244DM	NPN (Ts=2-2.5us) TO126 3A	2	Jilin Huawei	
T1	A062 T9x5x4	Base Drive: 18:6:6:1 turns	1	ACME	A062T9*5*4C(RX)
T2	EDR2810	Output Transformer	1		
U1	RED2511	LLC LED controller IC	1	RediSem	
			TOTAL	52	



Inductor	
CoreType	EDR2810
Material	PC44
Value	976 uH
Winding	60t x 10s x 0.10mm

Transformer	
Core type	EDR2810
Material	PC44
Pri	20t x 1s x 0.28mm ECW
Aux	3t x 1s x 0.1mm ECW
Sec1	12t x 1s x 0.3mm TEXE
Sec2	12t x 1s x 0.3mm TEXE

次級要雙線並繞