

Bill Of Materials

Item #	Quantity	Part Ref	Value	Description	Mfg	Mfg Part Number
1	1	C1	100 nF	100 nF, 275 VAC, Film, X Class	Kemet	R46KI310000M1K
2	1	C2	56 μ F	56 μ F, 400 V, High Voltage Al Electrolytic, (25 mm x 20 mm)	Nichicon	LGU2G560MELY
3	1	C3	1.5 nF	1.5 nF, 630 V, High Voltage Ceramic	TDK	FA26C0G2J152JNU00
4	2	C4, C11	0.1 μ F	0.1 μ F, 50 V, Ceramic, X7R	Kemet	C322C104K5R5TA
5	1	C5	47 μ F	47 μ F, 16 V, Electrolytic, Gen Purpose, 800 m Ω , (11 mm x 5 mm)	Panasonic	EEU-FC1C470
6	1	C6	0.22 nF	0.22 nF, 250 VAC, Ceramic, Y Class	Vishay Cera-Mite	440LT22-R
7	1	C7	27 pF	27 pF, 1 kV, High Voltage Ceramic	Vishay	S270K25SL0N63L6R
8	1	C8	10 μ F	10 μ F, 50 V, Electrolytic, Gen Purpose, 1050 m Ω , (11.5 mm x 5 mm)	Panasonic	ECA-1HHG100
9	1	C9	1800 μ F	1800 μ F, 25 V, Electrolytic, Super Low ESR, 18 m Ω , (20 mm x 16 mm)	United Chemi-Con	EKZE250ELL182ML20S
10	1	C10	100 μ F	100 μ F, 16 V, Electrolytic, Low ESR, 250 m Ω , (11.5 mm x 6.3 mm)	United Chemi-Con	ELXZ160ELL101MFB5D
11	4	D1, D2, D3, D4	1N4006-E3/54	800 V, 1 A, Standard Recovery, DO-41	Vishay	1N4006-E3/54
12	1	D5	RMPG06K-E3/5	800 V, 1 A, Fast Recovery, 250 ns, MPG06	Vishay	RMPG06K-E3/54
13	1	D6	1N914	100 V, 0.3 A, Fast Recovery, 4 ns, DO-35	ON Semiconductor	1N914
14	1	D7	VS-4EWH02FN-M3	200 V, 4 A, Ultrafast Recovery, 20 ns, TO-252AA	Diodes Inc.	VS-4EWH02FN-M3
15	1	F1	1.25 A	250 VAC, 1.25 A, Radial TR5, Time Lag Fuse	Littelfuse / Wickmann(R)	37411250410
16	1	HS1		56.6 mm x 20 mm. Aluminum Alloy (3003 OR 5052), 1.6 mm thickness. Heatsink for use with Device U1.	Custom	
17	1	L1	6 mH	6 mH, 1.6 A	Panasonic	ELF18N016
18	1	L2	3.3 μ H	3.3 μ H, 2.66 A	Bourns Inc.	RL822-3R3K-RC
19	2	R1, R2	130 k Ω	130 k Ω , 5 %, 0.5 W, Carbon Film	Generic	
20	1	R3	13 Ω	13 Ω , 5 %, 0.25 W, Carbon Film	Generic	
21	2	R4, R5	2 M Ω	2 M Ω , 1 %, 0.25 W, Metal Film	Generic	
22	1	R6	6.8 Ω	6.8 Ω , 5 %, 0.125 W, Carbon Film	Generic	
23	1	R7	390 Ω	390 Ω , 5 %, 0.25 W, Carbon Film	Generic	
24	1	R8	787 Ω	787 Ω , 1 %, 0.125 W, Metal Film	Generic	
25	1	R9	1 k Ω	1 k Ω , 5 %, 0.125 W, Carbon Film	Generic	
26	1	R10	43.2 k Ω	43.2 k Ω , 1 %, 0.125 W, Metal Film	Generic	
27	1	R11	11.3 k Ω	11.3 k Ω , 1 %, 0.125 W, Metal Film	Generic	
28	1	RT1	12 Ω	NTC Thermistor 12 Ω , 4 A	TDK	B57211P0120M301
29	1	T1	E20/10/6 (EF20)	3F3 Core Material See Transformer Construction's Materials List for complete information	Epcos	B66311-G-X127
30	1	U1	TOP254EN	TOPSwitch-HX, TOP254EN, eSIP-7C	Power Integrations	TOP254EN
31	1	U2	LTV817A	Optocoupler LTV817A, 35 V, CTR 80 - 160 %, 4-DIP	Liteon	LTV817A

32	1	U3	TL431CLPM	2.495 V, Shunt Regulator IC, 2 %, TO-92	Texas Instruments	TL431CLPM
33	1			1566 mm ² area on Copper PCB. 2 oz (70 μm) thickness. Heatsink for use with Rectifier D7.	Custom	