## **▼** Bill Of Materials

Item #	Quantity	Part Ref	Value	Description	Mfg	Mfg Part Number
1	1	C1	47 nF	47 nF, 250 V, Film, X Class	Murata	GA355ER7GB473KW01L
2	1	C2	68 μF	68 μF, 400 V, High Voltage Al Electrolytic, (30 mm x 20 mm)	Nichicon	LGU2G680MELY
3	1	С3	2.7 nF	2.7 nF, 1 kV, High Voltage Ceramic	Kemet	C1210H272JDGACTU
4	1	C4	10 μF	10 μF, 16 V, Ceramic, X7R	Kemet	C1206C106K4RACTU
5	1	C5	0.22 nF	0.22 nF, 250 VAC, Ceramic, Y Class	Vishay	VJ2008A221JXUSTX1
6	1	C6	82 pF	82 pF, 630 V, High Voltage Ceramic	Murata	GRM31A5C2J820JW01D
7	1	C7	560 pF	560 pF, 100 V, Ceramic, C0G	AVX Corp	08051A561JAT2A
8	1	C8	10 μF	10 μF, 50 V, Electrolytic, Gen Purpose, 1000 m $\Omega$ , (6.1 mm x 6.3 mm)	Rubycon	50TRV10M6.3X6.1
9	2	C9, C10	1500 μF	1500 $\mu$ F, 10.0 V, Electrolytic, Super Low ESR, 13 m $\Omega$ , (12.7 mm x 10 mm)	Nichicon	PCG1A152MCL1GS
10	1	C11	100 μF	100 μF, 10.0 V, Electrolytic, Low ESR, 500 m $\Omega$ , (3.5 mm x 2.8 mm)	Kemet	T495B107M010ATE500
11	4	D1, D2, D3, D4	DFLR1800-7	800 V, 1 A, Standard Recovery, POWERDI123	Diodes Inc.	DFLR1800-7
12	1	D5	RS07K-GS08	800 V, 1.4 A, Fast Recovery, 300 ns, DO-219AB	Vishay	RS07K-GS08
13	1	D6	LL4148-M-08	100 V, 0.15 A, Fast Recovery, 8 ns, SOD-80	Vishay	LL4148-M-08
14	1	D7	MBR2060CTG	60 V, 10 A, Schottky, TO-220AB	ON Semiconductor	MBR2060CTG
15	1	F1	1 A	250 VAC, 1 A, Radial TR5, Time Lag Fuse	Littelfuse / Wickmann(R)	37411000410
16	1	HS1		161.1 mm x 20 mm. Aluminum Alloy (3003 OR 5052), 1.6 mm thickness. Heatsink for use with Rectifier D7.	Custom	
17	1	L1	8.2 mH	8.2 mH, 0.5 A	Wurth Elektronik	744862082
18	1	L2	3.3 μΗ	3.3 μH, 7.6 A	Bourns Inc.	PM5022-3R3M-RC
19	2	R1, R2	75 kΩ	75 kΩ, 5 %, 2 W, Metal Oxide Film	Generic	
20	1	R3	13 Ω	13 Ω, 5 %, 0.25 W, Thick Film	Generic	
21	2	R4, R5	2.05 ΜΩ	2.05 MΩ, 1 %, 0.25 W, Thick Film	Generic	
22	1	R6	130 Ω	130 $\Omega$ , 5 %, 0.25 W, Thick Film	Generic	
23	1	R7	18 Ω	18 Ω, 5 %, 0.25 W, Thick Film	Generic	
24	1	R8	11 kΩ	$11k\Omega$ , $5\%$ , $0.125W$ , Thick Film	Generic	
25	1	R9	5.1 kΩ	5.1 kΩ, 5 %, 0.125 W, Thick Film	Generic	
26	1	R10	100 Ω	$100~\Omega, 5~\%, 0.125~W, Thick Film$	Generic	
27	1	RT1	15 Ω	NTC Thermistor 15 $\Omega$ , 1 A	EPCOS (TDK)	B59860C0120A570

Item #	Quantity	Part Ref	Value	Description	Mfg	Mfg Part Number
28	1	Т1	RM8/I (RM8/I- 3F3)	3F3 Core Material Refer to Manufacturer datasheet for a number of parts to purchase	Ferroxcube	RM8/I-3F3
29	1	T1 Bobbin	RM8/I - 1 (P6- S6)	Bobbin Material : Polybutyleneterephthalate (PBT)	Ferroxcube	CPV-RM8/I-1S-12PD
30	1	T1 Core Acc.1	CLI/P-RM8/I	Mounting clip with earth pin . Stainless steel (CrNi)	Ferroxcube	CLI/P-RM8/I
31	1	T1 Core Acc.2	CLI-RM8/I	Mounting clip without earth pin . Stainless steel (CrNi)	Ferroxcube	CLI-RM8/I
32	1	U1	TNY290PG	TinySwitch-4, TNY290PG, DIP-8	Power Integrations	TNY290PG
33	1	U2	FOD817A3SD	Optocoupler FOD817A3SD , 70 V, CTR 80 - 160 %, 4-SMD	ON Semiconductor	FOD817A3SD
34	1	VR1	MMSZ33T1G	33 V, 500 mW, 5 %, SOD-123, General Purpose	ON Semiconductor	MMSZ33T1G
35	1	VR2	BZT55B3V9- GS08	3.9 V, 500 mW, 2 %, SOD-80, General Purpose	Vishay	BZT55B3V9-GS08
36	1			361 mm² area on Copper PCB. 2 oz (70 μm) thickness. Heatsink for use with Device U1.	Custom	