



9. Bill of Materials (BOM)

Table 5. Bill of Materials

Item	Qty.	Reference	Value	Part Number	Description	Manufacturer	Package
1	1	C1	150 μ F	450BXW150MEFC18X45	Cap, Alum, 450 V, 20%	Rubycon	Thru-Hole
2	4	C2-3, C7-8	1800 μ F	UHN1C182MPD	Cap, Alum, 16 V, 20%	Nichicon	Thru-Hole
3	7	C4-6, C12, C15, C21, C25	100 nF		CAP, SMD, CERAMIC, 25 V, X7R	STD	805
4	1	C9	33 pF		CAP, SMD, CERAMIC, 25 V, X7R	STD	805
5	0	C10	DNI		CAP, SMD, CERAMIC	STD	805
6	1	C11	22 nF	ECW-H8223HA	Cap, 800VDC, Metal Poly Film, 3%	Panasonic	Radial
7	3	C13, C20, C24	10 μ F		CAP, SMD, CERAMIC, 25 V, X7R	STD	1206
8	1	C14	22 μ F	EEA-GA1E220B	Cap, Alum, 25 V, 20%	Panasonic	Axial
9	1	C16	150 pF		CAP, SMD, CERAMIC, 25 V, X7R	STD	805
10	1	C17	1.5 nF		CAP, SMD, CERAMIC, 25 V, X7R	STD	805
11	1	C18	820 nF		CAP, SMD, CERAMIC, 25 V, X7R	STD	805
12	1	C19	1 nF		CAP, SMD, CERAMIC, 25 V, X7R	STD	805
13	1	C22	100 pF		CAP, SMD, CERAMIC, 25 V, X7R	STD	805
14	1	C23	470 pF		CAP, SMD, CERAMIC, 25 V, X7R	STD	805
15	2	D1, D7		MMSD4148	Diode, 200 mA, 100 V, Signal Diode	Fairchild	SOD-123
16	4	D2-4, D8		MBR0540	Diode, Schottky, 40 V, 500 mA	Fairchild	SOD-123
17	2	D5-6		SS24	Diode, Schottky, 40 V, 2 A	Fairchild	SMB
18	28	J5, J7-8, J10-14, J17-36		3103-2-00-21-00-00-08-0	Test pin, Gold, 40 mil	Mill-Max	Thru-Hole
19	2	J6, J15		7701	Terminal, 15 A, Vertical, PC mount	Keystone	Thru-Hole
20	1	J9		ED100/3DS	Header, Vert. 3 pin, 5 mm Spacing	OST	Thru-Hole
21	1	J16		OSTTA024163	Header, 2 pin, 100 mil Spacing, 15 A	OST	Thru-Hole
22	2	Q1-2		FCB20N60FTM	MOSFE, N-CH, 600 V, 20 A, 190 m Ω	Fairchild	D2PAK
23	2	Q3-4		FDB9406_F085	MOSFE, N-CH, 40 V, 110 A, 1.8 m Ω	Fairchild	D2PAK
24	2	Q5-6		ZXTP07040DFF	Transistor, PNP, -40 V, -3 A	Diodes Inc.	SOT-23



Item	Qty.	Reference	Value	Part Number	Description	Manufacturer	Package
25	4	R1, R10-12	4.99 Ω		RES, SMD, 1/4W	STD	1206
26	2	R2 ,R18	309 Ω		RES, SMD, 1/8W	STD	805
27	4	R3, R13, R15, R19	20 k Ω		RES, SMD, 1/8W	STD	805
28	1	R4	0 Ω		RES, SMD, 1/2W	STD	2010
29	1	R5	0 Ω	12250000Z0EG	RES, SMD, 1W	Vishay	2512W
30	1	R6	20 Ω		RES, SMD, 1/8W	STD	805
31	2	R7, R24	15 k Ω		RES, SMD, 1/8W	STD	805
32	1	R8	8.06 k Ω		RES, SMD, 1/8W	STD	805
33	1	R9	0 Ω		RES, SMD, 1/8W	STD	805
34	1	R14	2.74 k Ω		RES, SMD, 1/8W	STD	805
35	1	R16	21.5 k Ω		RES, SMD, 1/8W	STD	805
36	1	R17	2.1 k Ω		RES, SMD, 1/8W	STD	805
37	1	R20	13 k Ω		RES, SMD, 1/8W	STD	805
38	1	R21	69.8 Ω		RES, SMD, 1/8W	STD	805
39	1	R22	30.1 Ω		RES, SMD, 1/8W	STD	805
40	0	R23	DNI		RES, SMD, 1/8W	STD	805
41	1	R25	100 k Ω		RES, SMD, 1/8W	STD	805
42	1	R26	3.3 Ω		RES, SMD, 1/4W	STD	1206
43	1	R27	200 k Ω		RES, SMD, 1/8W	STD	805
44	1	R28	43.2 k Ω		RES, SMD, 1/8W	STD	805
45	2	R29-30	2.49 Ω		RES, SMD, 1/4W	STD	1206
46	1	T1		760895731	XFMR, LLC, 475 μ H, 100 μ H	Würth Elektronik	Thru-Hole
47	1	T2		RL-10950	XFMR, CT, 1:50, 35 A	Renco	SMD
48	1	T3		P0584	XFMR, Gate Drive, 1:1:1, 450 μ H	Pulse	Thru-Hole
49	1	U1		FAN7688	LLC Resonant PFM Controller	Fairchild	SOIC- 16DW
50	2	U2-3		FAN3225C	Driver, Low-Side, High- Speed, 4 A	Fairchild	SOIC-8
51	1	PWB		FEBFAN7688_100250A	PWB, 4-Layer, FR4, 0.062"	Custom	N/A
52	2	Sleeving,C1 HV leads		TFT20018 NA005	1.02 mm x 1.78 mm x 13 mm (IDxODxL)	Alpha Wire	N/A
53	1	N/A			Silicone adhesive bonding for C1		N/A
54	4	N/A		8441B	Hex Standoff, 6-32, Nylon, 3/8"	Keystone	Nylon
55	4	N/A		NY PMS 632 0038 PH	Machine Screw, Nylon, 6-32 x 3/8"	B&F Fastener	Nylon

Notes:

1. STD = Standard Components
2. DNI = Do Not Install