

Step	Qty	Reference(s)	Value	Notes
1	9	C1, C5, C6, C14, C15, C17, C23, C29, C30	10u	0805
2	10	C2, C8, C9, C10, C13, C20, C24, C25, C26, C28	100n	0805
3	4	C3, C7, C19, C21	470p	0805
4	6	C4, C16, C18, C22, C31, C33	4u7	0805
5	2	C11, C27	2n2	0805
6	2	C12, C34	1u	0805
7	6	C32, C35, C36, C37, C38, C39	100n	0805
8	24	R2, R6, R9, R10, R13, R14, R15, R17, R18, R20, R21, R25, R26, R29, R30, R31, R33, R34, R35, R36, R45, R46, R47, R48	10k	0805
9	10	R11, R12, R22, R23, R27, R28, R37, R38, R49, R58	47k	0805
10	2	R56, R57	0R	bridge with solder or bit of wire. Or the LED legs clipping.
11	6	R1, R7, R16, R19, R39, R40	15k	0805
12	4	R3, R4, R5, R24	1k	0805
13	6	R8, R32, R41, R50, R54, R55	100k	0805
14	6	R42, R43, R44, R51, R52, R53	30k	0805
15	2	D1, D4	1N4001 or 1N5819	reverse power protection optional, could jumper these with wire instead of series diode drop
16	1	Power Header	Conn_02x05	if using keyed header, double check orientation for +/-
17	2	U4, U5	TL074	triple check orientation
18	1	U6	TL072	triple check orientation
19	2	U1, U3	PT2399	triple check orientation
20	1	U2	L7805 or Recom R-78E5.0-0.5	when looking from the power header, dot is on left and +5 on right. Logo faces you. LM7805 drawn on PCB with tab up.
insert and align faceplate elements before soldering steps 21-24				
21	8	RV1, RV2, RV3, RV4, RV5, RV6, RV7, RV8	B100K	
22	2	D2, D3	3mm LED	check LED orientation. Colors optional: changes tone of overload
23	1	SW1	SW_DPDT	doesn't need a lot of solder
24	5	Jacks	Thonkiconn	switching jacks

DO-41

SOIC-14_3.9x8.7mm_P1.27mm

SOIC-8_3.9x4.9mm_P1.27mm

SOIC-16_3.9x9.9mm_P1.27mm

TO-220

Alpha_RD901F-40-00D

6-pin

PJ-3001F

power cable
screws and washers
knobs