

Name: BOM CIR-SRD3-1 Version: 1.0 High power switching regulator, constant voltage/current, 2.5A.

Item	Part:	Qty.	Part Code	Description:	Digikey Part #	Alternate part
1	IC1	1	LM2596T-AD	150kHz, 3A simple switcher regulator, TO-220	LM2596T-ADJ-ND	
2	IC2	1	LM258N	LM258 dual op-amp, 8-pin DIP	497-1554-5-ND	
3	H1	1	2-pos.	2-position terminal block, 0.15" spacing	609-3918-ND	A97976-ND
4	H2	1	2-pos.	2-position terminal block, 0.15" spacing	A98166-ND	281-1400-ND
5	D1	1	1N5822	3A Schottky diode	1N5822-TPMSCT-ND	1N5822-E3/54GICT-ND
6	D2	1	1N5822	3A Schottky diode	1N5822-TPMSCT-ND	
7	D3	1	1N4148	low power signal diode.	1N4148FS-ND	1N4148TACT-ND
8	L1 (optional)	1	220/jumper	22uH inductor, JW Miller	M8620-ND	
9	L2	1	151-221	150-220uH inductor, JW Miller, 1A	M8632-ND	RLB9012-221KL-ND
10	L3	1	151-221	151-220uH inductor, JW Miller, 1A	M8632-ND	
11	L4 (optional)	1	470/jumper	47uH inductor, JW Miller	M9989-ND	
12	C1 (optional)	1	104	50V 0.1uF multi-layer. cap, 0.2" spacing	478-3193-ND	
13	C2	1	105	63V 1uF mylar cap. 0.2" spacing	495-2470-ND	399-5447-1-ND, 478-3195-ND
14	C3	1	35V220	35V 220uF electrolytic cap, 0.2" spacing	P12411-ND	P12397-ND
15	C4	1	35V220	35V 220uF electrolytic cap, 0.2" spacing	P12411-ND	P12397-ND
16	C5 (optional)	1	334	63V 0.33uF mylar cap. 0.2" spacing	495-2548-ND	399-5446-1-ND
17	C6 (optional)	1	105	63V 1uF mylar cap. 0.2" spacing	495-2470-ND	399-5447-1-ND
18	C7	1	103	50V 0.01uF multi-layer ceramic. cap. 0.2" spacing	478-4862-ND	
19	C8	1	35V220	35V 220uF electrolytic cap, 0.2" spacing	P12411-ND	P12397-ND
20	C9	1	35V220	35V 220uF electrolytic cap, 0.2" spacing	P12411-ND	P12397-ND
21	C10 (optional)	1	105	50V 1.0uF multi-layer. cap, filter, 0.2"	478-3195-ND	478-4864-ND
22	C11 (optional)	1	104	50V 0.1uF multi-layer. cap, filter, 0.2"	478-3193-ND	
23	C12 (optional)	1	35V47	35V 47uF electrolytic cap, 0.1" spacing	P5550-ND	565-1320-ND
24	VR1	1	203	20k variable resistor. Current range adjust	3362P-203LF-ND	3362R-203LF-ND
25	VR2	1	103	10k variable resistor, add wire to pins 2/3 bottom set VR2 for output voltage range, 10k=10.5-22.5V	3362P-103LF-ND	3362R-103LF-ND
26	R1	1	560k	560k 1/8W resistor	560KEBK-ND	
27	R2	1	1k	1k 1/8W resistor	1KEBK-ND	
28	R3	1	1k	1k 1/8W resistor	1KEBK-ND	
29	R4	1	7.5k	7.5k 1/8W resistor, set R4 for minimum output voltage, R4/R3 ratio	7.5KEBK-ND	
30	R5	1	1k	1k 1/8W resistor	1KEBK-ND	
31	R6	1	10k	10k 1/8W resistor, 1-2.5A CC, series with D5+	10KEBK-ND	
32	R7	1	4.7k	4.7k 1/8W resistor	4.7KEBK-ND	
33	R8	1	0R1	0.10 ohm, 1W power resistor	RSMF1JTR100CT-ND	ACCT-ND, RSF1JTR100CT-ND WHBR10FECT-ND
34	LED1	1	green LED	Green LED, T1-3/4 size	160-1706-ND	
35		1	heatsink	IC1 heatsink, TO-220, 0.5" COMPACT mount IC1 vertically with heatsink.	HS104-2-ND	HS104-1-ND, HS107-ND
36		1	pad	heat transfer pad		
37		1	assembly			
38		1	hardware			
39		1	PCB			