

Onstate Technologies	Bill Of Materials		Document:	BOM CIR-SRD3-3
			Revision:	1
			Revision Date:	December 21, 2010
Name:	CIR-SRD3-3	Version:	1.0	Basic high power switching regulator, constant current/voltage, 1.0A.

Item	Part:	Qty.	Part Code	Description:	Digikey Part #	Alternate part
1	IC1	1	LM2576T-ADJ	52kHz, 3A simple switcher regulator, TO-220	LM2576T-ADJGOS-ND	LM2576T-ADJNS-ND
2	IC2	1	LM258N	LM258 dual op-amp, 8-pin DIP	497-1554-5-ND	
3	D1	1	1N5918	1A Schottky diode	1N5819DICT-ND	1N5819IR-ND
4	D2	1	1N5918	1A Schottky diode	1N5819DICT-ND	1N5819IR-ND
5	D3	1	1N4148	low power signal diode.	1N4148FS-ND	1N4148TACT-ND
6	L1	1	jumper	wire jumper		
7	L2	1	221	220uH inductor, JW Miller, 1A 6000-221K-RC	M8632-ND	RLB9012-221KL-ND
8	L4 (optional)	1	jumper	wire jumper		
9	C2	1	105	50V 1uF cap. 0.2" spacing	478-3195-ND	478-4864-ND
10	C3	1	35V220	35V 220uF electrolytic cap, 0.2" spacing	P12411-ND	P12397-ND, P12413-ND
11	C5 (optional)	1	224	Capacitor, 50V 0.22uF (224), 0.2" ceramic Z5U	478-4865-ND	
12	C8	1	35V220	35V 220uF electrolytic cap, 0.2" spacing	P12411-ND	P12397-ND, P12413-ND
13	C10 (optional)	1	105	50V 1uF cap. 0.2" spacing	478-3195-ND	478-4864-ND
14	C11 (optional)	1	104	50V 0.1uF multi-layer. cap, 0.2" spacing	478-3193-ND	
15	VR1	1	203	20k variable resistor. Current range adjust	3362R-203LF-ND	3362P-203LF-ND
16	VR2	1	103	10k variable resistor, add wire to pins 2/3 bottom	3362R-103LF-ND	3362P-103LF-ND
				set VR2 for output voltage range, 10k=10.5-22.5V		
17	R1	1	560k	560k 1/8W resistor	560KEBK-ND	
18	R2	1	1k	1k 1/8W resistor	1KEBK-ND	
19	R3	1	1k	1k 1/8W resistor	1KEBK-ND	
19	R4	1	7.5k	7.5k 1/8W resistor, R4+ to R3+ (close to C12)	7.5KEBK-ND	
				set R4 for minimum output voltage, R4/R3 ratio		
20	R5	1	1k	1k 1/8W resistor	1KEBK-ND	
21	R6	1	15k	15k 1/8W resistor, max. current limit set	15KEBK-ND	
				set R6 for minimum output current, R6/R5 ratio		
22	R8	1	0R1	0.10 ohm current sense, 1W power resistor	RSMF1JTR100CT-ND	0.1ACCT-ND, RSF1JTR100CT-ND
23		1	heatsink	IC 1 heatsink, TO-220, 0.5" COMPACT	HS107-ND	HS106-ND
24		1	hardware			
25		1	PCB	PCB-SRD3		