



Bill Of Materials

Document:	CIR-PEPCR-1
Revision:	1
Revision Date:	January 4, 2011

Name: CIR-PEPCR-1 Version: 1.0 Circuit Board, Photocell and Current Regulator, constant current, 3A max.

Line #	PCB Part Labels	Qty.	Part Code	Description	DigiKey Part #
1	R1	1	RES100K	Resistor, 100k Ohms, 1/8W 5% carbon film	100KEBK-ND
2	R2 (not used)	1		optional parallel resistor, 1/8W 5% carbon film	
3	R3	1	RES3K3	Resistor, 3.3k Ohms, 1/8W 5% carbon film	3.3KEBK-ND
4	R4	1	RES2K2	Resistor, 2.2k Ohms, 1/8W 5% carbon film	2.2KEBK-ND
5	R5, R9	2	RES47K	Resistor, 47k Ohms, 1/8W 5% carbon film	47KEBK-ND
6	R6	1	RES47K	Resistor, 47k Ohms, 1/8W 5% carbon film	47KEBK-ND
7	R7, R10, R11	3	RES100K	Resistor, 100k Ohms, 1/8W 5% carbon film	100KEBK-ND
8	R8	1	RES10K	Resistor, 10k Ohms, 1/8W 5% carbon film	10KEBK-ND
9	R12	1	RES24K	Resistor, 24k Ohms, 1/8W 5% carbon film	24KEBK-ND
			RES0R1	Resistor, 0.1 Ohm, 1W 1% wirewound, mini	RSMF1JTR100CT-ND
					RSMF1JTR100CT-ND, WHBR10FECT-ND
10	R13	1	RES470K	Resistor, 470k Ohms, 1/8W 5% carbon film	470KEBK-ND
11	R14	1	RES10K	Resistor, 10k Ohms, 1/8W 5% carbon film	10KEBK-ND
12	C3,C6	2	CAP35V22	Capacitor, 35V 22uF, 0.1" electrolytic 20%, low profile, 105°C	P924-ND
13	C1,C2	2	CAP16V47	Capacitor, 16V 47uF, 0.1" electrolytic 20%, low profile, 105°C	P914-ND
14	C4	1	CAP16V10	Capacitor, 16V 10uF, 0.1" electrolytic 20%, low profile, 105°C	P910-ND
15	C5	1	CAP104	Capacitor, 50V 0.1uF (104), 0.1" ceramic X7R 10%	BC1084CT-ND
16	C6	1	CAP104	Capacitor, 50V 0.1uF (104), 0.2" multilayer X7R 10%	P4923-ND
17	D1 (sensor)	1	CdS	Sensor, CdS photocell, PDV-P9203, 5-20K	PDV-P9203
18	D2, D3	2	DIO1N4148	Diode, 1N4148T, Si 75V 0.15A, 500mW DO-35	1N4148FS-ND
19	REG1	1	DIS78L08	Regulator, LM78L08, 8V 100mA, TO-92	MC78L08ABPGOS-ND
20	IC1	1	ICS258	IC, LM258N, dual op-amp, 8-pin DIP	497-1554-5-ND
21	VR1	1	RES20K	Resistor, 20k, 1/4" cer pot, top adj ' . ' pins	3362R-203LF-ND
22	VR2	1	RES1K0	Resistor, 1k, 1/4" cer pot, top adj ' . ' pins	3362R-102LF-ND
23	Q1	1	MOSZ34	MOSFET, IRFZ34N N-HEXFET, 55V 29A 0.04 Ohm, TO-220AB	IRFZ34NPBF-ND
24	H1	1	header	Header and shunt, or wire jumper 1/2	
25	J1	1	wire jumper	Header and shunt, or wire jumper 1/2	
26	1/16" heatshrink	4	1/16" heatshrink black	black heatshrink, 12mm L	
27	PCB	1	PCB-PEPCR-1	PCB, Photocell and Current Regulator PCR, v1.0	PCB-PEPCR
			Subtotal:		
28	WIRE1	0.6	ELE-WIR18RD1-1	Wire, 18AWG, red, 1 cond. stranded	
29	WIRE2	0.3	ELE-WIR18BK1-1	Wire, 18AWG, black, 1 cond. stranded	
30	WIRE3	0.3	ELE-WIR18BE1-1	Wire, 18AWG, blue, 1 cond. stranded	

Total Quantity: 37.2