

F1 First Watt DIY BOM <http://www.hifimaker.com>

PSU							
Index	Qty	Part Number	Description	Part Reference	Unit Price	Extended Price	Source
1	4	KC006L-ND	CURRENT LIMITER INRUSH	TH1-4	\$2.10	\$8.40	Digikey
2	8	P1.0W-3BK-ND	RES 1 OHM 3W 5% METAL FILM	R1-8, R27-28	\$0.48	\$3.81	Digikey
3	2	P2.2KW-3BK-ND	RES 2.2K OHM 3W 5% METAL OXIDE	R9-10	\$0.51	\$1.02	Digikey
4*	8	P6577-ND	CAPACITOR 15000UF 25V ELEC TSHA	C1-8	\$3.99	\$31.94	Digikey
5	1	P4600-ND	.0047UF INTEREFERENCE METAL CAP	C9	\$0.93	\$0.93	Digikey
6	1		18+18 450VA Toriodal Transformer	T1			
7*	4	MUR3060WTGOS-ND	Schottkey Rectifier	DR1-DR4		\$0.00	Digikey
8*	4	MUR1560GOS-ND	Schottkey Rectifier	DR1-DR4	\$1.37	\$5.48	Digikey
9	1		Fuse Holder	FH-1			
10	1		DPDT Power Switch	SW1			

**PSU Total: \$51.58**

Amp Board - 2 Channels							
10	4	ZTX550-ND	TRANSISTOR PNP 45V 1000MA TO-92	Q5-6	\$0.63	\$2.52	Digikey
11	2	P10305-ND	CAP 1000UF 35V ELECT FC RADIAL	C3	\$1.11	\$2.22	Digikey
12	4	P0.47W-3BK-ND	RES 0.47 OHM 3W 5% METAL FILM	R29-30	\$0.51	\$2.04	Digikey
13*	2	P10W-3BK-ND	RES 10 OHM 3W 5% METAL OXIDE	R27b, R28b	\$0.51	\$1.02	Digikey
14	4	P47W-3BK-ND	RES 47 OHM 3W 5% METAL FILM	R17-18	\$0.63	\$2.52	Digikey
15	12	P1.0W-3BK-ND	RES 1 OHM 3W 5% METAL FILM	R9-12, R27-28	\$0.48	\$5.71	Digikey
16	4	3362P-502LF-ND	POT 5.0K OHM 1/4" SQ CERM SL ST	P1-2	\$0.83	\$3.32	Digikey
17	2	P5166-ND	CAP 220UF 35V ALUM LYTIC RADIAL	C4	\$0.26	\$0.52	Digikey
18	4	1N4747ADICT-ND	DIODE ZENER 20V 1W 5% DO-41	Z1-2	\$0.41	\$1.64	Digikey
19*	4	505-MKP41.0/250/10	Wima MPK10 1.0uf/250V	C1-2	\$2.15	\$8.60	Mouser
20*	4	495-1121-ND	CAP 1.0UF 63V METAL POLY	C1-2	\$0.81	\$3.24	Digikey
20	14	71-RN55D-F-221	Dale RN55 1/8W Metal Film 221 ohms	R1-4, R21-22, R16	\$0.07	\$0.98	Mouser
21	4	71-RN55D-F-562	Dale RN55 1/8W Metal Film 562 kohms	R5-6	\$0.08	\$0.32	Mouser
22	4	71-RN55D-F-392	Dale RN55 1/8W Metal Film 392 ohms	R7-8	\$0.10	\$0.40	Mouser
23	4	71-RN55D-F-1.0M	Dale RN55 1/8W Metal Film 1.0 Mohms	R13-14	\$0.08	\$0.32	Mouser
24	2	71-RN55D-F-475	Dale RN55 1/8W Metal Film 475 ohms	R15	\$0.08	\$0.16	Mouser
25	2	71-RN55D-F-10K	Dale RN55 1/8W Metal Film 10.0 kohms	R20	\$0.08	\$0.16	Mouser
26	4	71-RN55D-F-4.75K	Dale RN55 1/8W Metal Film 4.75 kohms	R23-24	\$0.08	\$0.32	Mouser
27	4	71-RN55D-F-1.5K	Dale RN55 1/8W Metal Film 1.50 kohms	R25-26	\$0.08	\$0.32	Mouser
28	2		IRFP240 matched pair	Q1-2	\$5.60	\$11.20	tech-diy.com
29	2	IRFP240PBF-ND	IRFP240	Q7	\$3.21	\$6.42	Digikey
30	2		IRFP9240 matched pair	Q3-4	\$5.60	\$11.20	tech-diy.com
31	10	BER131-ND	HEATPAD TO-247 .005" Q3		\$0.61	\$6.10	Digikey

Additional Vishay/Dale 1/8w RN55 need to be ordered for each value for matching, except R15, R16, R20

**Amp Board Totals: \$68.01** Wima C1-2 Option  
**\$56.55** Panasonic C1-2 Option

Q1 & Q2 are Matched to each other  
 Q3 & Q4 are Matched to each other  
 Q5 & Q6 are left unmatched  
 Q7 is not matched

*Choose either Wima from Mouser or Panasonic from Digikey
*Optional resistors to adjust offset
*Use any PSU Caps over 25vdc, Nelson uses this value since he has lots in stock
* Choose either diodes 7 or 8, or whatever bridge rectifier you prefer