

EL84 "Engineer's Amp"

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Qty	Parts	Description	Mfg	Mfg PN	Vendor	Vendor PN	Cost Ea	Cost Ext	Notes
4	C1, C2, C16, C17	Electrolytic cap, 47uF 400V, 16mm dia	Nichicon	UVY2G470MHD	Mouser	647-UVY2G470MHD	\$ 2.24	\$ 8.96	
6	C10, C11, C12, C13, C18, C22	Film cap, 0.22uF 400V, 15mm LS	Wima	MKP4G032204D00KSSD	Mouser	505-MKP4G032204DKSSD	\$ 0.91	\$ 5.46	C10, C11, C12, C13 can use 22mm LS
2	C23, C24	Not used					\$ -	\$ -	
2	C3, C15	Electrolytic cap, 220uF 400V, 30mm dia snap	Epcos TDK	B43644C9227M000	Mouser	871-B43644C9227M000	\$ 5.17	\$ 10.34	
5	C4, C6, C19, C20, C21	Electrolytic cap, 470uF 35V, 12mm or 16mm dia	Elna	RSR08471M1GG25300T	Mouser	555-35V471M1G6	\$ 1.40	\$ 7.00	
4	C5, C8, C9, C14	Film cap, 330pF 1000V, 5mm or 7mm LS	Wima	FKP20103301D00JSSD	Mouser	505-FKP2330/1000/5	\$ 0.32	\$ 1.28	Can also use silver mica
1	C7	Electrolytic cap, 22uF 400V, 13mm dia	Nichicon	UVY2G220MHD	Mouser	647-UVY2G220MHD	\$ 1.60	\$ 1.60	
4	D1, D2, D3, D4	Rectifier, 600V 1A ultrafast, DO-41	ST	STTH1R06	Mouser	511-STT1R06	\$ 0.15	\$ 0.60	UF4005 - UF4007 OK
2	D15, D16	Schottky rectifier, 40V 1A, DO-41	ST	1N5819	Mouser	511-1N5819	\$ 0.21	\$ 0.42	
1	D18	Zener diode, 10V, DO-41	Vishay	ZPY10-TR	Mouser	78-ZPY100	\$ 0.23	\$ 0.23	Low dynamic impedance preferred
4	D5, D6, D7, D8	Rectifier, 5A 50V, DO-201	On Semi	1N5400G	Mouser	863-1N5400G	\$ 0.29	\$ 1.16	
7	D9, D10, D11, D12, D13, D14, D17	Zener diode, 18V, DO-35	Vishay	TZX18B-TR	Mouser	78-TZX18B	\$ 0.14	\$ 0.98	Low capacitance preferred
1	H51	Heatsink, PCB mount extruded	Wakefield	657-15ABPEN	Mouser	567-657-15ABPEN	\$ 1.38	\$ 1.38	Also Aavid (Boyd) 529802B02500G
4	H52, H53, H54, H55	Heatsink, PCB TO-220	Same Sky	HSS07-C20-P274	Mouser	490-HSS07-C20-P274	\$ 1.39	\$ 5.56	Also Aavid (Boyd) 7136DG
5	Q1, Q2, Q3, Q4, Q5	MOSFET, N-channel, 600V, TO-220FP	Rohm	R6004JNXC7G	Mouser	755-R6004JNXC7G	\$ 1.20	\$ 6.00	Also ST STF6N60M2 - SOA is limiting factor!
4	R1, R2, R11, R12	Resistor, carbon comp, ~100 ohms 1/2W	Any	RC20GF121J	Surplus Sales	RC20GF121J	\$ 0.50	\$ 2.00	Can use RCR, any value between 75 and 220
1	R13	Resistor, metal film, 10 ohm 1/4W	Yageo	MFR-25FRF52-10R	Mouser	603-MFR-25FRF52-10R	\$ 0.10	\$ 0.10	Any 1/4W resistor is OK
2	R14, R15	Resistor, wirewound, 125 ohm 3W	Vishay	RS02B125R0FE70	Mouser	71-RS02B125R0FE70	\$ 2.11	\$ 4.22	
3	R18, R21, R47	Resistor, 100 ohm 2W	Yageo	FMP200JR-52-100R	Mouser	603-FMP200JR-52-100R	\$ 0.17	\$ 0.51	JR or JT, or other 2W metal or carbon film
4	R23, R24, R26, R27	Resistor, 1.8k 2W	Yageo	FMP200JR-52-1K8	Mouser	603-FMP200JR-52-1K8	\$ 0.17	\$ 0.68	JR or JT, or other 2W metal or carbon film
13	R3, R4, R8, R10, R17, R38, R39, R40, R41, R42, R44, R53, R55	Resistor, carbon comp, ~1k 1/4W	Any	RC07GF122J	Surplus Sales	RC07GF122J	\$ 0.38	\$ 4.94	Can use RCR, any value between 120 and 2k
1	R32	Resistor, 1M 2W	Yageo	FMP200JR-52-1M	Mouser	603-FMP200JR-52-1M	\$ 0.17	\$ 0.17	JR or JT, or other 2W metal or carbon film
2	R33, R34	Resistor, metal film, 73.2 ohm 1/4W 1%	Yageo	MFR-25FRF52-73R2	Mouser	603-MFR-25FRF52-73R2	\$ 0.10	\$ 0.20	Any 1/4W resistor is OK
4	R35, R37, R50, R57	Resistor, 47 ohm 2W	Yageo	FMP-200R-52-47R0	Mouser	603-FMP-200R-52-47R0	\$ 0.17	\$ 0.68	JR or JT, or other 2W metal or carbon film
2	R43, R54	Resistor, metal film, 1k 1/4W 1%	Yageo	MFR-25FRF52-1K	Mouser	603-MFR-25FRF521K	\$ 0.10	\$ 0.20	Any 1/4W resistor is OK
2	R46, R48	Resistor, 100k 2W	Yageo	FMP200JR-52-100K	Mouser	603-FMP200JR-52-100K	\$ 0.17	\$ 0.34	JR or JT, or other 2W metal or carbon film
1	R36	Resistor, 390k 2W	Yageo	FMP200JR-52-390K	Mouser	603-FMP200JR-52-390K	\$ 0.17	\$ 0.17	JR or JT, or other 2W metal or carbon film
6	R5, R7, R9, R16, R45, R52	Resistor, metal film, 100k 1/4W 1%	Yageo	MFR-25FRF52-100K	Mouser	603-MFR-25FRF52100K	\$ 0.10	\$ 0.60	Any 1/4W resistor is OK
2	R49, R51	Resistor, 270k 2W	Yageo	FMP200JR-52-270K	Mouser	603-FMP200JR-52-270K	\$ 0.17	\$ 0.34	JR or JT, or other 2W metal or carbon film
2	R56, R58	Resistor, metal film, 8.2k 1/4W 1%	Yageo	MFR-25FRF52-8K2	Mouser	603-MFR-25FRF52-8K2	\$ 0.10	\$ 0.20	Any 1/4W resistor is OK
1	R59	Resistor, metal film, 10k 1/4W 1%	Yageo	MFR-25FRF52-10K	Mouser	603-MFR-25FRF5210K	\$ 0.10	\$ 0.10	Any 1/4W resistor is OK
9	R6, R19, R20, R22, R25, R28, R29, R30, R31	Resistor, 47k 2W	Yageo	FMP200JR-52-47K	Mouser	603-FMP200JR-52-47K	\$ 0.17	\$ 1.53	JR or JT, or other 2W metal or carbon film
1	RT1	Inrush limiter, 50 ohms 1A, CL140	Amphenol sensor	CL-140	Mouser	527-CL140	\$ 1.04	\$ 1.04	
2	U1, U2	IC, LDO, LM317, TO-220	ST	LM317BT	Mouser	511-LM317BT	\$ 0.56	\$ 1.12	Other manufacturers OK
2	VT1, VT2	Tube, 6DJ8 / ECC88 / 6922 / 6n23p	JJ	E88CC	Antique Electronics	T-6922-JJ-X	\$ 25.75	\$ 51.50	Or other manufacturer
4	VT3, VT4, VT5, VT6	Tube, 6BQ5 / EL84 / 6p14p	JJ	EL84	Antique Electronics	T-EL84-JJ	\$ 17.95	\$ 71.80	Or other manufacturer
6	@VT1, VT2, VT3, VT4, VT5, VT6	Tube socket, 9 pin	Belton	VT9-PT	Antique Electronics	P-ST9-620	\$ 2.95	\$ 17.70	
2		Output transformer	Pacific Audio Magnetics	Z-565	Pacific Audio Magnetics	Z-565	\$ 128.03	\$ 256.06	Or Musical Power Supplies OT19PP-DYN35 (see web page)
1		Power transformer, 250V / 6.3V	Antek	AS-1T250	Antek	AS-1T250	\$ 42.00	\$ 42.00	250V RMS / 200mA DC plus 6.3V / 4A minimum
1		RCA jack, red	Rean	NYS367-2	Mouser	568-NYS367-2	\$ 2.33	\$ 2.33	Or use your favorite
1		RCA jack, white	Rean	NYS367-9	Mouser	568-NYS367-9	\$ 2.33	\$ 2.33	Or use your favorite
2		Binding post, red	Keystone	4093	Mouser	534-4093	\$ 5.70	\$ 11.40	Or use your favorite
2		Binding post, black	Keystone	4094	Mouser	534-4094	\$ 5.70	\$ 11.40	Or use your favorite
1		IEC power inlet	Delta	10C3	Mouser	108-10C3	\$ 9.27	\$ 9.27	Or Qualtek 764-00/003
2		Fuse, 2A slow, 5x20mm	Schurter	0034.3120	Mouser	693-0034.3120	\$ 0.44	\$ 0.88	
1		PCB	pmllett.com	MEAMP2	pmllett.com	MEAMP2	\$ 40.00	\$ 40.00	
	Mouser	<a href="http://www.mouser.com">www.mouser.com</a>				Total	\$	\$ 586.78	
	Surplus Sales	<a href="http://www.surplussales.com">www.surplussales.com</a>							
	Antique Electronics	<a href="http://www.tubesandmore.com/">www.tubesandmore.com/</a>							
	Pacific Audio Magnetics	<a href="http://www.pacificaudiomagnetics.com/">www.pacificaudiomagnetics.com/</a>							
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