

Comment	Description	Designator	Footprint	LibRef	Quantity
LM7812CT	Integrated Circuit	12VReg1, 12VReg	TO18-4P470R103R103 9-3P	LM7812CT	2
ELUF1E191L	Aluminum Electrolytic Capacitors (Radial Lead Type) 390uF ±20%	C1, C2, C3, C4	PP-RAD-T14-D_0.8-0.5 L_15_1-MFG	OMP-05427-000460-1	4
1uF	Multilayer Ceramic Capacitor / Axial and Radial Leads, 1 uF, ±10%, 10 to 85 degC, 2 Pin THD, RoHS, Bulk	C5, C10, C15	KEMT- C33XC105M5U5TA-2	OMP-2000-05174-1	3
0.1uF	Multilayer Ceramic Capacitor / Axial and Radial Leads, 1 uF, ±10%, 10 to 85 degC, 2 Pin THD, RoHS, Bulk	C7	KEMT- C33XC105M5U5TA-2	OMP-2000-05174-1	1
0.01uF	Multilayer Ceramic Capacitor / Axial and Radial Leads, 1 uF, ±10%, 10 to 85 degC, 2 Pin THD, RoHS, Bulk	C8	KEMT- C33XC105M5U5TA-2	OMP-2000-05174-1	1
10uF	Multilayer Ceramic Capacitor / Axial and Radial Leads, 1 uF, ±10%, 10 to 85 degC, 2 Pin THD, RoHS, Bulk	C9, C14	KEMT- C33XC105M5U5TA-2	OMP-2000-05174-1	2
100uF	Multilayer Ceramic Capacitor / Axial and Radial Leads, 1 uF, ±10%, 10 to 85 degC, 2 Pin THD, RoHS, Bulk	C11, C16	KEMT- C33XC105M5U5TA-2	OMP-2000-05174-1	2
10uF	Multilayer Ceramic Capacitor / Axial and Radial Leads, 1 uF, ±10%, 10 to 85 degC, 2 Pin THD, RoHS, Bulk	C12, C17	KEMT- C33XC105M5U5TA-2	OMP-2000-05174-1	2
1uF	Multilayer Ceramic Capacitor / Axial and Radial Leads, 1 uF, ±10%, 10 to 85 degC, 2 Pin THD, RoHS, Bulk	C13, C18	KEMT- C33XC105M5U5TA-2	OMP-2000-05174-1	2
1M4148	DIODE GEN PURP 100V 200MA DO18	D1, D2	PP-017AG-MFG	OMP-07163-000046-1	2
LD40	CONN HEADER VERT 2.54MM	H1, H2, H3, H4, H5, H6, H7, H8, H10, &	PP-B2B-XH-A_LF_5N MFG	OMP-2000-05888-3	10
0022232031	Connector	M8, J8N, XJUT	HDV3WB79Q254_1X L_70X30X11.05P	0022232031	3
TL071CP	Integrated Circuit	IC1	DIP79AW6P254L959H 630JBN	TL071CP	1
AD711N	Integrated Circuit	IC2, IC3, IC4	DIP79AW6P254L959H 630JBN	AD711N	3
AD712NZ	Integrated Circuit	IC5	DIP79AW6P254L959H 630JBN	AD712NZ	1
Source	CONN HEADER VERT 2.54MM	J1	PP-B2B-XH-A_LF_5N MFG	OMP-2000-05888-3	1
61201021621	Connector	MAIN	SHDR10W6P254_2X5 L_20X30X8.50Z0P	61201021621	1
n 1	CONN HEADER VERT 1.0P20 2.54MM	PW	PP-4-644456-0-MFG	OMP-02369-000038-1	1
TPP31C	TRANS NPN 100V 3A TO-220	Q1	PP-TO-220- PMA0010988-MFG	OMP-12195-000001-1	1
TPP32C	TRANS PNP 100V 3A TO-220	Q2	PP-TO-220- PMA0010988-MFG	OMP-12195-000005-1	1
SAWTOOTH	NPN General Purpose Amplifier, 40 V VCE(sat), 0.2 A, -55 to 150 degC, 2-Pin TO-92, RoHS, Bulk	Q3	FAIR-TO-92	OMP-2000-04944-1	1
TPP31A	Complementary Silicon Plastic Power Transistor, 3-Pin TO-220, Tube	Q4	ONSC-TO-220-3-221A-09	OMP-1040-01124-1	1
TPP32A	Complementary Silicon Plastic Power Transistor, 3-Pin TO-220, Tube	Q5	ONSC-TO-220-3-221A-09	OMP-1040-01079-1	1
100K	RES 100K OHM 5% 1/8 AXIAL	R1, R2	PP-RR01-MFG	OMP-02212-000008-1	2
150kohm	RLK07C7501G58014 Res Metal Film 2.0K Ohm 2% 1/4W ±100ppm/°C 0.001% Conformal AXL Thru-Hole Bulk	R3	PP-RLR07-MFG	OMP-00030-01138779-1	1
10K	RLK07C7501G58014 Res Metal Film 2.0K Ohm 2% 1/4W ±100ppm/°C 0.001% Conformal AXL Thru-Hole Bulk	R4	PP-RLR07-MFG	OMP-00030-01138779-1	1
1K	RES 10K OHM 0.6W 1% AXIAL	R5	PP-MBB0207-MFG	OMP-02408-000035-1	1
150OHM	RES 10K OHM 0.6W 1% AXIAL	R6	PP-MBB0207-MFG	OMP-02408-000035-1	1
0.8K	RES 10K OHM 0.6W 1% AXIAL	R7	PP-MBB0207-MFG	OMP-02408-000035-1	1
10K	RES 10K OHM 0.6W 1% AXIAL	R8, R9, R10, R11, R13, R14, R15, R17	PP-MBB0207-MFG	OMP-02408-000035-1	8
68kohm	RES 10K OHM 0.6W 1% AXIAL	R12	PP-MBB0207-MFG	OMP-02408-000035-1	1
3K	RES 10K OHM 0.6W 1% AXIAL	R16	PP-MBB0207-MFG	OMP-02408-000035-1	1
0.5K	RES 10K OHM 0.6W 1% AXIAL	R18	PP-MBB0207-MFG	OMP-02408-000035-1	1
94B-XH-A_LF_5N	Connector	S1, S2	94B20ALFSN	94B-XH-A_LF_5N	2
HTSW-103-07-T-D	Connector	S3	HDV3WB6P254_2X5 L_20X30X8.50P	HTSW-103-07-T-D	1
n2	CONN HEADER VERT 1.0P20 2.54MM	SW	PP-4-644456-0-MFG	OMP-02369-000038-1	1
TL072CP	Dual Low-Noise JFET-Input General-Purpose Operational Amplifier, 7 to 38 V, 0 to 75 degC, 8-pin DIP (P8), Pb-Free (RoHS)	U1	P0008A	OMP-0017-00005-2	1