

Bill Of Materials for LM317_3_24Vsch

20 Capacitors

<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>Description</u>
4	C1-C4	2200U	Electrolytic Capacitor, 2200 μ F, 63 V, M Series, \pm 20%, Radial Leaded, 18 mm
4	C5-C8	470U	Electrolytic Capacitor, 470 μ F, 63 V, \pm 20%, Radial Leaded, 12.5 mm
1	C9	47U/25V	Electrolytic Capacitor, 47 μ F, 25 V, \pm 20%, Radial Leaded, 6.3 mm
11	C10-C20	0.1uF	SMD Multilayer Ceramic Capacitor, 1206

Sub-totals:

32 Resistors

<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>Description</u>
3	R1,R18-R19	6k8	SMD1206 250 mW, \pm 1%
1	R2	18K	SMD1206 250 mW, \pm 1%
1	R3	100K	SMD1206 250 mW, \pm 1%
2	R4,R11	6K8	SMD1206 250 mW, \pm 1%
4	R5,R8,R14-R15	24K	SMD1206 250 mW, \pm 1%
4	R6-R7,R12-R13	330	SMD1206 250 mW, \pm 1%
2	R9-R10	10K	SMD1206 250 mW, \pm 1%
2	R16-R17	680	SMD1206 250 mW, \pm 1%
4	R22,R32, R22.1,R32.1	0.1	Through Hole Resistor, 0.1 ohm, 5 W, \pm 5%, Axial Leaded
4	R24-R25,R27-R28	240K	SMD1206 250 mW, \pm 1%
4	R26,R29-R30, R33	12K	SMD1206 250 mW, \pm 1%
1	R31	33k	SMD1206 250 mW, \pm 1%

Sub-totals:

15 Integrated Circuits

<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>Description</u>
1	U1	78L05	5V Fixed 1A Positive Power Supply Regulator.
1	U2	LM337T	2A Adjustable Output Negative Voltage Regulator
1	U4	OPA445	High Voltage FET-Input Operational Amplifier
1	U5	7474	Dual Positive-Edge-Triggered D-Type Flip-Flops With Clear And Preset
2	U6,U8	OPA445,	Low Cost FET-Input Operational Amplifiers (1MHz, 3.5V/us, 4.5-36V)
1	U7	LM393	Dual, General Purpose, Differential Comparator
3	U9,U11,U13	7SEGM VOLTMETER	
2	U10,U12	AMPERMETER	
1	U14	7824	24V Fixed 1A Positive Power Supply Regulator.
1	U15	7924	24V Fixed 1A Negative Power Supply Regulator.
1	U16	LM317T	1.5A Adjustable Output Positive Voltage Regulator

Sub-totals:

3 Transistors

Quantity	References	Value	Description
1	Q1	MJ3001	Medium-Power Complementary Silicon Darlington Transistors 80V
1	Q2	MJ2501	Medium-Power Complementary Silicon Darlington Transistors 80V
1	Q3	BC337	Silicon NPN Low Power High Frequency Bipolar Transistor (625mW, 150eC)

Sub-totals:

4 Diodes

Quantity	References	Value	Description
2	D1-D2	1N4148	
2	D3-D4	LED-5MM RED	Animated LED model (Red)

Sub-totals:

27 Miscellaneous

Quantity	References	Value	Description
1	BR1	GBPC2501W	BRIDGE RECTIFIER, SINGLE PHASE, 25A 100V THOUGH HOLE
1	BR2	2W01G	Single-Phase Bridge Rectifier 100V, 2A
2	FU1-FU2	16A	Fuse 5x20mm 16A
12	J1-J12	TBLOCK-M2	Standard Terminal Block, Wire to Board 2 Contacts, 5 mm, PCB Mount
3	J13-J15	Banana Connector, 4mm, Jack, Panel Mount, 30A RED	Single pin terminal
1	RL1	12V	Animated 2 poles Relay model
1	RV1	68k	Rotary Potentiometer, Carbon, 68 kohm, 1 Turns, Linear, 50 mW, ± 20%, PTV09A Series
1	RV2	24k	Rotary Potentiometer, Carbon, 24 kohm, 1 Turns, Linear, 50 mW, ± 20%, PTV09A Series
1	SW1.1	CK1026	Rotary Switch, 4 Position, 3 Pole,
1	SW1.2	CK1026	Rotary Switch, 3 Position, 4 Pole,
1	TR1	TRANSFORMER 2X12V 10A	Toroidal Transformer, 52.4mm x 125.8mm, 240 VA, 2 x 12V, 10 A, Chassis, 230V
1	TR2	TRANSFORMER 2X12V 10A	Toroidal Transformer, 52.4mm x 125.8mm, 240 VA, 2 x 12V, 10 A, Chassis, 230V
1	VR1	TL431	Adjustable Precision Shunt Regulators.

Sub-totals:

Totals: