

Bill Of Materials for Dual Power - Linear Power Supply

Design Title Dual Power - Linear Power Supply
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Document Number
Revision 1.2
Design Created Thursday, March 30, 2023
Design Last Modified Thursday, March 30, 2023
Total Parts In Design 42

0 Modules

Quantity	References	Value	PCB Package	Notes
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Sub-totals:

14 Capacitors

Quantity	References	Value	PCB Package	Notes
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4	C1-C4	10nF	CAP-10N	C0G/NP0 MLCC / Ceramic / Film
4	C5-C8	4700uF	HE16X25	Large Electrolytic Power Filter Capacitors - Choose Low ESR Type
4	C10-C11, C20-C21	100nF	CAP-10N	C0G/NP0 MLCC / Ceramic / Film
2	C12, C22	150uF	FC8X12	Electrolytic Power Filter Capacitors - Choose Low ESR Type

Sub-totals:

10 Resistors

Quantity	References	Value	PCB Package	Notes
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2	R10, R20	340R	RES40	1% or Better Resistor (50 PPM Recommended)
2	R11, R21	255k	RES40	1% or Better Resistor (50 PPM Recommended)
1	R12	2.55K	RES40	1% or Better Resistor (50 PPM Recommended) - (2.55K for 15V Rail / 2K for 12V Rail)
2	R13, R23	237R	RES40	1% or Better Resistor (50 PPM Recommended)
2	R14, R24	1K	RES40	1% or Better Resistor (50 PPM Recommended)
1	R22	2.55k	RES40	1% or Better Resistor (50 PPM Recommended) - (2.55K for 15V Rail / 2K for 12V Rail)

Sub-totals:

2 Integrated Circuits

Quantity	References	Value	PCB Package	Notes
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1	U1	LM317T	TO-220V	Low Dropout / LDO Variable Voltage Regulator
1	U2	LM337T	TO-220V	Low Dropout / LDO Variable Voltage Regulator

Sub-totals:

0 Transistors

Quantity	References	Value	PCB Package	Notes
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Sub-totals:

8 Diodes

Quantity	References	Value	PCB Package	Notes
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4	D1-D4	1N5401	DIODE60	Rectifier Diodes.
2	D11, D21	1N4002	DIODE40	Rectifier Diodes.
2	D12, D22	LED	LED-T5	Power Indicator LEDs. One per rail. Recommend different color for each rail. (Can mount on PCB, or Panel.)

Sub-totals:

8 Miscellaneous

Quantity	References	Value	PCB Package	Notes
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1	J1	MTA156-9X	MTA156-9X	MTA-156 Friction Lock Power Header. Remove every other pin per PCB.
1	J2	MTA156-4	MTA156-4	MTA-156 Friction Lock Power Header.

3	RV1-RV3	MOV	V250LA20	MOV (Littlefuse V250LA20AP or Equivalent)
1	T1	L01-6384	L01-50VA	Amgis / Alfamag PCB Mount Toroidal, or Triad Magnetics Chassis Mount Toroidal - 50VA (18/18/36 for 15V Rail or 15/15/30 for 12V Rail)
2	VR10, VR20	500R	3362P	Use REAL Bourns 3362P Trim Pots here. Do NOT use knockoffs. (they are unreliable, and tolerances are not good)

Sub-totals:

Totals:

Thursday, March 30, 2023 3:14:27 PM