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12V to 1V @ 10A

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
C1	1	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, C0G/NP0, 0402	0402	C1005X7R1H104K	TDK		
C2, C3	2	10uF	CAP, CERM, 10uF, 16V, +/-20%, X7R, 1206	1206	C3216X7R1C106M	TDK		
C4, C5	2	100uF	CAP, CERM, 100uF, 6.3V, +/-20%, X5R, 1210	1210	C3225X5R0J107M	TDK		
C6, C7	2	0.022uF	CAP, CERM, 0.022uF, 16V, +/-10%, X7R, 0402	0402	C1005X7R1C223K	TDK		
C8	1	220pF	CAP, CERM, 220pF, 50V, +/-10%, X7R, 0402	0402	C1005X7R1H221K	TDK		
J1, J4	2		Power Connector, 8AWG, SILVER W/PIN, TH	10x16.65mm	09 08 000 6124	Harting		
J2	1	B2P-VH	Connector, Top Entry 2-pin, 156 mil spacing,	0.465 X 0.370 inch	B2P-VH	JST		
J3	1	ED120/2DS	Terminal Block, 2-pin, 15-A, 5.1mm	0.40 x 0.35 inch	ED120/2DS	OST		
L1	1	1.1uH	Inductor, Shielded Drum Core, Superflux, 1.1uH, 13A, 0.0032 ohm, SMD	WE-HC3	744314110	Würth Elektronik eiSos		
R1	1	49.9	RES, 49.9 ohm, 1%, 0.063W, 0402	0402	CRCW040249R9FKED	Vishay-Dale		
R2	1	1.33k	RES, 1.33k ohm, 1%, 0.063W, 0402	0402	CRCW04021K33FKED	Vishay-Dale		
R3	1	2.00k	RES, 2.00k ohm, 1%, 0.063W, 0402	0402	CRCW04022K00FKED	Vishay-Dale		
R4	1	150k	RES, 150k ohm, 1%, 0.063W, 0402	0402	CRCW0402150KFKED	Vishay-Dale		
R5	1	3.01k	RES, 3.01k ohm, 1%, 0.063W, 0402	0402	CRCW04023K01FKED	Vishay-Dale		
TP1, TP2, TP3	3	Red	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint	5010	Keystone		
TP4, TP5, TP6	3	Black	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint	5011	Keystone		
U1	1		Small, 10-A, 4.5-V to 17-V Input, SWIFT Synchronous Step-Down Converter with Light-Load Efficiency, RUW0015A	RUW0015A	TPS54020RUW	Texas Instruments		None

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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