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Universal AC Input 5V@1.2A Single Board Cube Charger

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
C1	1	0.22µF	CAP, CERM, 0.22µF, 250V, +/-10%, C Series, 1210	1210 (3225 Metric)	C3225X7T2W224K200A A	TDK Corporation
C2	1	8.2µF	CAP, AL, 8.2µF, 400V, +/-20%, TH	Radial D8x16mm	UVC2G8R2MPD	Nichicon
C4	1	4.7µF	CAP, CERM, 4.7µF, 50V, +/-10%, X5R, 0805	0805	C2012X5R1H475K125A B	TDK
C5	1	220µF	CAP, AL, 220µF, 6.3V, +/-20%, 0.018 ohm, TH	6.3x5.5mm	6SEPC220M	Panasonic
C7	1	560µF	CAP, AL, 560µF, 6.3V, +/-20%, 0.007 ohm, TH	6.3x9mm	6SEPC560MW	Panasonic
C8	1	0.1µF	CAP, CERM, 0.1µF, 50V, +/-10%, X7R, 0603	0603	C1608X7R1H104K	TDK
D1	1	1.15V	Diode, Switching-Bridge, 600V, 0.5A, MiniDIP	MiniDIP	RH06-T	Diodes Inc.
D2	1	1.25V @ 200mA	Diode, Ultrafast, 100V, 0.25A, SOD-323	SC-76, SOD-323	BAS21AHT1G	ON Semiconductor
D3	1	400V	Diode, Superfast Rectifier, 400V, 1A, PowerDI123	PowerDI123	DFLU1400-7	Diodes Inc.
D4	1	45V	Diode, Schottky, 45V, 10A, PowerDI5	PowerDI5	PDS1045-13	Diodes Inc.
D5	1	82V	Diode, Zener, 82V, 1W, SMA	SMA	SMAJ4762A	Micro Commercial Component
D6	1	30V	Diode, Zener, 30V, 500mW, 1.2x1.2x2.0 mm	1.2x1.2x2.0 mm	BZM55C30	Vishay-Semiconductor
FR	1		Fuse, 1A, 250V, TH	Fuse, 7.11x3.94mm	0263001.WRT1L	Littelfuse
J1	1		Connector, Receptacle, USB Type A, Vertical, TH	13.68x14.47x7mm	0673298020	Molex
L1	1	1mH	Inductor, Unshielded Drum Core, Ferrite, 1mH, 0.25A, 4.38 ohm, TH	D6 x 8.5mm	7447462102	Würth Elektronik eiSos
Q1	1	1.5V	Transistor, NPN, 400V, 1.5A, SOT-32	SOT-32	ST13003-K	STMicroelectronics
R1	1	10.0k	RES, 10.0k ohm, 1%, 0.125W, 0805	0805	CRCW080510K0FKEA	Vishay-Dale
R2	1	487	RES, 487 ohm, 1%, 0.125W, 0805	0805	CRCW0805487RFKEA	Vishay-Dale
R3	1	332k	RES, 332k ohm, 1%, 0.1W, 0603	0603	CRCW0603332KFKEA	Vishay-Dale
R4	1	47	RES, 47 ohm, 5%, 0.1W, 0603	0603	CRCW060347R0JNEA	Vishay-Dale
R5A, R5B, R5C	3	1.47Meg	RES, 1.47Meg ohm, 1%, 0.125W, 0805	0805	CRCW08051M47FKEA	Vishay-Dale
R7	1	39k	RES, 39k ohm, 5%, 0.1W, 0603	0603	CRCW060339K0JNEA	Vishay-Dale
R8	1	82k	RES, 82k ohm, 5%, 0.125W, 0805	0805	CRCW080582K0JNEA	Vishay-Dale
R9	1	33.2k	RES, 33.2k ohm, 1%, 0.1W, 0603	0603	CRCW060333K2FKEA	Vishay-Dale
R10	1	470	RES, 470 ohm, 5%, 0.1W, 0603	0603	CRCW0603470RJNEA	Vishay-Dale
R11	1	0	RES, 0 ohm, 5%, 0.1W, 0603	0603	CRCW06030000Z0EA	Vishay-Dale
R12	1	2.21	RES, 2.21 ohm, 1%, 0.125W, 0805	0805	CRCW08052R21FKEA	Vishay-Dale
R13	1	8.25	RES, 8.25 ohm, 1%, 0.125W, 0805	0805	CRCW08058R25FKEA	Vishay-Dale
R14	1	6.2k	RES, 6.2k ohm, 5%, 0.125W, 0805	0805	CRCW08056K20JNEA	Vishay-Dale
R16	1	47k	RES, 47k ohm, 5%, 0.1W, 0603	0603	CRCW060347K0JNEA	Vishay-Dale
R17	1	51k	RES, 51k ohm, 5%, 0.1W, 0603	0603	CRCW060351K0JNEA	Vishay-Dale
R18	1	75.0k	RES, 75.0k ohm, 1%, 0.1W, 0603	0603	CRCW060375K0FKEA	Vishay-Dale
R19	1	51.1k	RES, 51.1k ohm, 1%, 0.1W, 0603	0603	CRCW060351K1FKEA	Vishay-Dale
T1	1	1.5mH	Transformer, 1.5mH, TH	15.62x14.1x10mm	750341872	Würth Elektronik eiSos
TP1, TP2	2		Connector, Receptacle, Pin (15-22mil), TH	PCB Pin (0461)	0461-0-15-15-21-14-04-0	Mill-Max

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
U1	1		Constant-Voltage, Constant-Current Controller With Primary-Side Regulation, DBV0006A	DBV0006A	UCC28722BV	Texas Instruments

Notes:

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

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