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Universal AC to 12V/25W using UCC28700

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
!PCB1	1		Printed Circuit Board		PMP10276	Any	-	-
C1	1	2200pF	CAP, CERM, 2200 pF, 250 V, +/- 20%, E, Cap, 7x12x9 mm	Cap, 7x12x9 mm	DE1E3KX222MA4BL01	MuRata		
C2, C3	2	1000uF	CAP ALUM 1000UF 16V 20% RADIAL	CAPPR5-10x16	16YXJ1000MT810X16	Rubycon		
C4, C5	2	10uF	CAP, CERM, 10uF, 16V, +/-20%, X5R, 1206	1206	C3216X5R1C106M	TDK		
C6	1	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0805	0805	08053C104KAT2A	AVX		
C7	1	47uF	CAP, AL, 47uF, 400V, +/-20%, 0.609529 ohm, TH	16x25	EEUED2G470	Panasonic		
C8	1	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603	06035C104KAT2A	AVX		
C9	1	2.2uF	CAP, CERM, 2.2uF, 50V, +/-10%, X5R, 1206	1206	GRM31CR61H225KA88L	MuRata		
D1	1	100V	Diode, Schottky, 100V, 3.5A, DPAK	DPAK	30WQ10FNPBF	Vishay-Semiconductor		
D2	1	120V	Diode, TVS, Uni, 120V, 400W, SMA	SMA	SMAJ120A	Littelfuse		
D3	1	1.15V	Diode, Switching-Bridge, 600V, 0.5A, MiniDIP	MiniDIP	RH06-T	Diodes Inc.		
D4	1	1.7V	Diode, Ultrafast, 1000V, 1A, SMA	SMA	US1M-13-F	Diodes Inc.		
D5	1		DIODE SWITCH 200V 200MA SOD323	SOD-323	BAS20HT1G			
F1	1		FUSE FAST 250VAC 2A RADIAL	TR5 fuse 8.5mm DIA	37012000410	Littelfuse		
Line, TP1	2	Red	Test Point, TH, Miniature, Red	Keystone5000	5000	Keystone		
Natural, TP2	2	Black	Test Point, TH, Miniature, Black	Keystone5001	5001	Keystone		
Q1	1	650V	MOSFET N-CH 650V 7.3A TO252	DPAK	IPD65R600E6	Infineon		None
R1	1	2.0k	RES, 2.0k ohm, 5%, 0.25W, 1206	1206	CRCW12062K00JNEA	Vishay-Dale		
R2	1	33.2	RES, 33.2 ohm, 1%, 0.25W, 1206	1206	CRCW120633R2FKEA	Vishay-Dale		
R3	1	4.7	RES, 4.7 ohm, 5%, 0.25W, 1206	1206	CRCW12064R70JNEA	Vishay-Dale		
R4	1	75.0k	RES, 75.0k ohm, 1%, 0.1W, 0603	0603	CRCW060375K0FKEA	Vishay-Dale		
R5, R6	2	3.3Meg	RES, 3.3Meg ohm, 5%, 0.125W, 0805	0805	CRCW08053M30JNEA	Vishay-Dale		
R7	1	0	RES, 0 ohm, 5%, 0.1W, 0603	0603	CRCW0603000Z0EA	Vishay-Dale		
R8	1	698	RES, 698, 1%, 0.25 W, 1206	1206	CRCW1206698RFKEA	Vishay-Dale		
R9, R10	2	0.75	RES, 0.75 ohm, 1%, 0.5W, 1206	1206	CSR1206FKR750	Stackpole Electronics Inc		
R11	1	19.6k	RES, 19.6 k, 1%, 0.1 W, 0603	0603	CRCW060319K6FKEA	Vishay-Dale		
T1	1	250uH	Transformer, 80uH, TH	Transformer, 25x16x22.2mm	750314727	Wurth Elektronik eiSos		
U1	1		Constant-Voltage, Constant-Current Controller With Primary-Side Regulation, DBV0006A	DBV0006A	UCC28700DBV	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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