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UCC28730 5V/10A Flyback

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC81	1		Printed Circuit Board		PMP10407	Any		
C1	1	2200pF	CAP, CERM, 2200 pF, 300 V, +/- 20%, E, TH, 2-Leads, Body 9x7mm, Pin Spacing 7.5mm	TH, 2- Leads, Body 9x7mm, Pin Spacing 7.5mm	DE6E3KJ222MN3A	MuRata		
C2, C3, C4	3	680uF	CAP ALUM 680UF 6.3V 20% RADIAL	10x12.5mm	PLE0J681MDO1	Nichicon		
C5	1	470uF	CAP ALUM 470UF 6.3V 20% RADIAL	6.3x5.5mm	6.3YXJ470M6.3X11	Rubycon		
C6	1	1uF	CAP, CERM, 1 uF, 16 V, +/- 10%, X5R, 0603	0603	C0603C105K4PACTU	Kemet		
C7	1	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0805	0805	08053C104KAT2A	AVX		
C8	1	47uF	CAP ALUM 47UF 400V 20% RADIAL	18x20mm	EKXG401ELL470MM20S	UCC		
C9	1	68uF	CAP ALUM 68UF 400V 20% RADIAL	18x20mm	400BXW68MEFC18X20	Rubycon		
C11, C14	2	220pF	CAP, CERM, 220 pF, 300 V, +/- 10%, B, TH, 2- Leads, Body 8x7mm, Pin Spacing 7.5mm	TH, 2- Leads, Body 8x7mm, Pin Spacing 7.5mm	DE6B3KJ221KN3A	MuRata		
C12	1	0.33uF	CAP, Film, 0.33uF, 275V, +/-20%, TH	RCAP, 17.5x17.5x9.5mm	ECQ-U2A334ML	Panasonic		
C13, C15, C18, C19	4	1uF	CAP, CERM, 1uF, 16V, +/-10%, X5R, 0603	0603	C0603C105K4PACTU	Kemet		
C17	1	4.7uF	CAP, CERM, 4.7 uF, 10 V, +/- 10%, X5R, 0603	0603	0603ZD475KAT2A	AVX		
C20	1	2.2uF	CAP, CERM, 2.2 uF, 25 V, +/- 10%, X5R, 1206	1206	GRM316R61E225KA12D	MuRata		
C21	1	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603	06035C104KAT2A	AVX		
C101	1	4700pF	CAP, CERM, 4700 pF, 1000 V, +/- 10%, X7R, 1206	1206	GRM31BR73A472KW01L	MuRata		
D1, D3	2	78V	TVS DIODE 78VWM 126VC SMC	SMC	SMCJ78A	Fairchild Semiconductor		
D2	1	800V	Diode, Switching-Bridge, 800V, 4A, TH	GBU	GBU4K-E3/45	Vishay-Semiconductor		
D4	1	1.7V	Diode, Ultrafast, 1000V, 1A, SMA	SMA	US1M-13-F	Diodes Inc.		
D5	1	200V	Diode, Ultrafast, 200V, 1A, SMA	SMA	ES1D-13-F	Diodes Inc.		
D6	1	45V	DIODE SCHOTTKY 40V 1A DO214AC	SMA	CDBA140-G	Comchip		
D7	1	30V	Diode, Schottky, 30V, 0.2A, SOD-323	SOD-323	BAT54HT1G	ON Semiconductor		
F1	1		FUSE FAST 250VAC 2A RADIAL	TR5 fuse 8.5mm DIA	37012000410	Littelfuse		
HS1	1		Heat Sink, TO-220, TH	TO-220 Heat Sink	576012B00000G	Avaid		
J1	1	2x1	Conn Term Block, 2POS, 5.08mm, TH	PhoenixContact_1715721	1715721	Phoenix Contact		
J2	1		HEADER, .312 VERT 3POS	19.7x10.7 x8.5 mm	1-1318301-3	TE Connectivity		
L1	1	100uH	INDUCTOR 100UH .9A 8095 RAD	Dia 8x10mm	744772101	Würth Elektronik eiSos		
L2	1	1.1uH	Inductor, Shielded Drum Core, Superflux, 1.1uH, 13A, 0.0032 ohm, SMD	WE-HC3	744314110	Würth Elektronik eiSos		
L3	1	10mH	Coupled inductor, 10mH, 1A, TH	17.5x22x13 mm	744822110	Würth Elektronik eiSos		
Q1	1	40V	MOSFET, N-CH, 40V, 22A, SON 5x6mm	SON 5x6mm	CSD18501Q5A	Texas Instruments		None
Q2	1	650V	MOSFET N-CH 650V 10.6A TO220	TO-220AB	IPP65R380E6	Infineon Technologies		None
Q3	1	1.6V	Transistor, PNP, 60V, 0.8A, SOT-23	SOT-23	MMBT2907A	Fairchild Semiconductor		
R1	1	100k	RES, 100 k, 5%, 0.1 W, 0603	0603	CRCW0603100KJNEA	Vishay-Dale		
R2	1	1.0k	RES, 1.0 k, 5%, 0.1 W, 0603	0603	CRCW06031K00JNEA	Vishay-Dale		
R4	1	20.0	RES, 20.0, 1%, 0.25 W, 1206	1206	CRCW120620R0FKEA	Vishay-Dale		
R5, R6	2	100	RES, 100 ohm, 1%, 0.063W, 0402	0402	CRCW0402100RFKED	Vishay-Dale		
R7	1	49.9k	RES, 49.9 k, 1%, 0.1 W, 0603	0603	CRCW060349K9FKEA	Vishay-Dale		
R8	1	221k	RES, 221k ohm, 1%, 0.1W, 0603	0603	CRCW0603221KFKEA	Vishay-Dale		
R9	1	100	RES, 100, 5%, 0.25 W, 1206	1206	CRCW1206100RJNEA	Vishay-Dale		
R10	1	107k	RES, 107 k, 1%, 0.1 W, 0603	0603	CRCW0603107KFKEA	Vishay-Dale		
R11	1	1.0	RES, 1.0, 5%, 0.25 W, 1206	1206	CRCW12061R00JNEA	Vishay-Dale		
R12	1	10	RES, 10 ohm, 5%, 0.1W, 0603	0603	CRCW060310R0JNEA	Vishay-Dale		
R13	1	100k	RES, 100k ohm, 5%, 0.125W, 0805	0805	CRCW0805100KJNEA	Vishay-Dale		
R14	1	590	RES, 590, 1%, 0.1 W, 0603	0603	CRCW0603590RFKEA	Vishay-Dale		
R15, R101	2	0.47	RES 0.47 OHM 1/2W 5% 2010 SMD	2010	ERJ-12ZQJR47U	Panasonic		
R16, R17	2	47.5k	RES, 47.5 k, 1%, 0.1 W, 0603	0603	CRCW060347K5FKEA	Vishay-Dale		
R21	1	0	RES, 0, 5%, 0.1 W, 0603	0603	CRCW0603000Z0EA	Vishay-Dale		
T1	1	220 uH	Transformer, 220 uH, TH	TH, 24-Leads, Body 1250x1100mil	RLT1-1123	Renco Electronics		
U1	1		Voltage Droop Monitor with Wake-Up Output, DBV0005A	DBV0005A	UCC24650DBV	Texas Instruments		None
U2	1		GREEN Rectifier Controller Device, D0008A	D0008A	UCC24610D	Texas Instruments		None
U3	1		50 mA, 24 V, 3.2-mA Supply Current Low-Dropout Linear Regulator, DCK0005A	DCK0005A	TPS71550DCK	Texas Instruments		None
U4	1		Constant-Voltage Constant-Current Flyback Controller With PSR and Wake-Up Monitoring, D0007A	D0007A	UCC28730D	Texas Instruments		None
C10	0	100pF	CAP, CERM, 100pF, 100V, +/-5%, COG/NP0, 0603	0603	C1608C0G2A101J	TDK		
C16	0	47pF	CAP, CERM, 47pF, 25V, +/-5%, COG/NP0, 0402	0402	GRM1555C1E470JA01D	MuRata		
R3	0	DNP	RES, 0 ohm, 5%, 0.125W, 0805	0805	CRCW08050000Z0EA	Vishay-Dale		
R18	0	36.5k	RES, 36.5 k, 1%, 0.1 W, 0603	0603	CRCW060336K5FKEA	Vishay-Dale		
R19	0	3.16Meg	RES, 3.16 M, 1%, 0.1 W, 0603	0603	CRCW06033M16FKEA	Vishay-Dale		
R20	0	1.0Meg	RES, 1.0 M, 5%, 0.1 W, 0603	0603	CRCW06031M00JNEA	Vishay-Dale		
RT1	0	10 ohm	Thermistor NTC, 10 ohm, 20%, Disc 11.5mmx6mm	Disc 11.5mmx6mm	B57236S0100M000	EPCOS Inc		

Notes:

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

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