

Filename: BOM-PMP10375(001).xls
 Variant: 001
 Generated: 6/18/2015 11:36:47 PM
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350W Single stage AC-DC LLC-SRC

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC81	1		Printed Circuit Board		PMP10375	Any		
C1	1	2200pF	CAP, CERM, 2200 pF, 250 V, +/- 20%, E, Cap, 7x12x9 mm	Cap, 7x12x9 mm	DE1E3KX222MA4BL01	MuRata		
C2, C6	2	680uF	CAP ALUM 680UF 200V 20% SNAP	RCAP, 30x30mm	LG2D681MELA30	Nichicon		
C3, C7	2	470pF	CAP, CERM, 470pF, 300V, +/-10%, YY2, 5x7.5 mm	5x7.5 mm	VY2471K29Y5SS63V7	Vishay-Bccomponents		
C4	1	1uF	CAP FILM 1UF 450VDC RADIAL	Radial 18.2x8.5x17.9	450MPK105J	Rubycon		
C5	1	0.33uF	CAP, Film, 0.33uF, 275V, +/-20%, TH	RCAP, 17.5x17.5x9.5mm	EQ-U2A334ML	Panasonic		
C8, C9, C10, C12, C13, C14	6	3.3uF	CAP, CERM, 3.3uF, 50V, +/-20%, X7R, 1210	1210	C3225X7R1H335M	TDK		
C11, C16	2	680uF	CAP ALUM 680UF 35V 20% RADIAL	12.5x20	EEU-FR1V681B	Panasonic		
C15	1	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0805	0805	08055C104KAT2A	AVX		
C17, C21	2	1uF	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0603	0603	GRM188R61E105KA12 D	MuRata		
C18	1	22uF	CAP, CERM, 22 uF, 25 V, +/- 20%, X5R, 1210	1210	12103D226MAT2A	AVX		
C19	1	100uF	CAP ALUM 100UF 25V 20% RADIAL	RCAP, 5x5mm	UYV1E101MDD1TD	Nichicon		
C20, C37	2	0.033uF	CAP, Film, 0.033 uF, 1250 V, +/- 5%, TH	18x9.5x18mm	121MPE333J	Rubycon		
C24	1	10pF	CAP, CERM, 10pF, 50V, +/-5%, C0G/NP0, 0603	0603	06035A100JAT2A	AVX		
C25	1	0.01uF	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	0603	C0603C103K5RACTU	Kemet		
C26	1	0.22uF	CAP, CERM, 0.22uF, 25V, +/-10%, X5R, 0603	0603	06033D224KAT2A	AVX		
C27	1	6800pF	CAP, CERM, 6800 pF, 100 V, +/- 10%, X7R, 0603	0603	06031C682KAT2A	AVX		
C28	1	100pF	CAP, CERM, 100pF, 1000V, +/-5%, U2J, 1206	1206	GRM31A7U3A101JW31 D	MuRata		
C29	1	0.22uF	CAP, CERM, 0.22uF, 25V, +/-5%, X7R, 0805	0805	08053C224JAT2A	AVX		
C30	1	0.022uF	CAP, CERM, 0.022uF, 50V, +/-10%, X5R, 0603	0603	GRM188R61H223KA01 D	MuRata		
C31	1	1uF	CAP, CERM, 1uF, 16V, +/-10%, X5R, 0603	0603	C0603C105K4PACTU	Kemet		
C32	1	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X5R, 0603	0603	06033D104KAT2A	AVX		
C33	1	1000uF	CAP, AL, 1000uF, 16V, +/-20%, TH	CAPPR5-10x16	16ZLJ1000MCE10X16	Rubycon		
C34	1	1uF	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0805	0805	GRM216R61E105KA12 D	MuRata		
C35	1	1000pF	CAP, CERM, 1000pF, 50V, +/-10%, C0G/NP0, 0603	0603	06035A102KAT2A	AVX		
C36	1	6800pF	CAP, CERM, 6800pF, 50V, +/-5%, X7R, 0603	0603	C0603C682J5RACTU	Kemet		
D1	1	420V	RECT BRIDGE GPP 8A 400V GBU	GBU	GBU8G-BP	Micro Commercial Componen		
D2, D9	2	100V	DIODE SCHOTTKY 100V 20A TO220AB	TO-220AB	STPS20M100ST	STMicroelectronics		
D3, D7, D13	3	0.63V	Diode, P-N, 70V, 0.2A, SOT-323	SOT-323	BAV99WT1G	Fairchild Semiconductor		
D4, D8, D17	3	30V	Diode, Schottky, 30V, 0.2A, SOD-323	SOD-323	BAT54HT1G	ON Semiconductor		
D5, D6	2	100V	DIODE SCHOTTKY 60V 3A DO201AD	DO-201AD	SR306	MCC		
D10	1	0.45V	Diode, Schottky, 60V, 3A, SOD-123	SOD-123	MBR0560-TP	Micro Commercial Componen		
D11	1	0.35V	Diode, Schottky, 30V, 0.2A, SOD-323	SOD-323	BAT54HT1G	ON Semiconductor		
D12	1	1.4V	Diode, Ultrafast, 100V, 0.25A, SOD-323	SOD-323	BAS316, 115	NXP Semiconductor		
D14	1	100V	Diode, Schottky, 100V, 2A, SMB	SMB	B2100-13-F	Diodes Inc.		
D15	1	12V	Diode, Zener, 12V, 200mW, SOD-323	SOD-323	MMSZ5242BS-7-F	Diodes Inc.		
D16	1	13V	Diode, Zener, 13V, 200mW, SOD-323	SOD-323	MMSZ5243BS-7-F	Diodes Inc.		
D101, D102, D103	3	16V	TVS DIODE 16VWM 26VC SMC	SMC	SMCJ16A	Fairchild Semiconductor		
F1	1		Fuse, 6.3A, 250V, TH	TR5 fuse 8.5mm DIA	37216300001	Littelfuse		
HS1, HS2, HS4	3		Heat Sink, TO-220, TH	TO-220 Heat Sink	530614B00000G	Aavid		
HS3, HS5	2		Heat Sink, TO-220 Vertical	25.4x42.54x25.4mm	590302B03600G	Aavid		
J1	1		HEADER, .312 VERT 3POS	19.7x10.7 x8.5 mm	1-1318301-3	TE Connectivity		
J2, J3	2	2x1	Conn Term Block, 2POS, 5.08mm, TH	PhoenixContact_1715 721	1715721	Phoenix Contact		
L1	1	2.2mH	CHOKE TOROID 2.2MH 8A VERTICAL	30x35x21mm	7448258022	Würth Elektronik eiSos		
L2	1	1uH	Inductor, Shielded Drum Core, Ferrite, 1uH, 13A, 0.00386 ohm, SMD	WE-PD-XXL	7447709001	Würth Elektronik eiSos		
L3	1	40uH	Inductor, 40 uH, 0.032 ohm, TH	TH, 12-Leads, Body 30.35x29.2mm	750315069	Würth Elektronik eiSos		
Q1, Q4	2		MOSFET N-CH 500V 12A TO-220	TO-220AB	STP14NM50N	ST		None
Q2, Q5	2	0.3V	Transistor, NPN, 40V, 0.15A, SOT-23	SOT-23	MMBT2222A	Fairchild Semiconductor		
Q3, Q6	2	1.6V	Transistor, PNP, 60V, 0.8A, SOT-23	SOT-23	MMBT2907A	Fairchild Semiconductor		
Q7	1		TRANSISTOR NPN 600V 2A DPAK	DPAK	KSC5502DTM			
Q8	1		TRANS NPN 50V 3A SOT223	SOT-223	PBSS4350Z,135			
R1, R2, R4, R6	4	100k	RES, 100k ohm, 5%, 0.25W, 1206	1206	CRCW1206100KJNEA	Vishay-Dale		
R3, R5	2	750k	RES, 750k ohm, 1%, 0.25W, 1206	1206	CRCW1206750KFKEA	Vishay-Dale		
R7, R14	2	10	RES, 10 ohm, 5%, 0.1W, 0603	0603	CRCW060310R0JNEA	Vishay-Dale		
R8	1	2.2	RES, 2.2 ohm, 5%, 1W, 2512	2512	CRCW25122R20JNEG	Vishay-Dale		
R9, R10, R103, R104	4	20k	RES, 20 k, 5%, 0.25 W, 1206	1206	CRCW120620K0JNEA	Vishay-Dale		
R11, R15	2	20.0k	RES, 20.0k ohm, 1%, 0.125W, 0805	0805	CRCW080520K0FKEA	Vishay-Dale		
R12	1	0.1	RES, 0.1 ohm, 1%, 1W, 2010	2010	CRM2010-FX-R100ELF	Bourns		
R13, R101, R102	3	10.0k	RES, 10.0k ohm, 1%, 0.25W, 1206	1206	CRCW120610K0FKEA	Vishay-Dale		
R16	1	12.1k	RES, 12.1 k, 1%, 0.1 W, 0603	0603	CRCW060312K1FKEA	Vishay-Dale		
R17, R26	2	0	RES, 0 ohm, 5%, 0.1W, 0603	0603	CRCW0603000Z0EA	Vishay-Dale		
R18	1	511	RES, 511 ohm, 1%, 0.1W, 0603	0603	CRCW0603511RFKEA	Vishay-Dale		
R19, R25, R39	3	10.0k	RES, 10.0k ohm, 1%, 0.1W, 0603	0603	CRCW060310K0FKEA	Vishay-Dale		
R20	1	97.6k	RES, 97.6 k, 1%, 0.1 W, 0603	0603	CRCW060397K6FKEA	Vishay-Dale		
R21	1	33.2k	RES, 33.2 k, 1%, 0.1 W, 0603	0603	CRCW060333K2FKEA	Vishay-Dale		
R22	1	1.0Meg	RES, 1.0Meg ohm, 5%, 0.1W, 0603	0603	CRCW06031M00JNEA	Vishay-Dale		
R23	1	15	RES, 15 ohm, 5%, 0.1W, 0603	0603	CRCW060315R0JNEA	Vishay-Dale		
R24	1	2.0k	RES, 2.0k ohm, 5%, 0.1W, 0603	0603	CRCW06032K00JNEA	Vishay-Dale		
R27, R34	2	499k	RES, 499k ohm, 1%, 0.25W, 1206	1206	CRCW1206499KFKEA	Vishay-Dale		
R28	1	62.0	RES, 62.0, 1%, 0.1 W, 0603	0603	RC0603FR-0762RL	Yageo America		
R29	1	20.0k	RES, 20.0k ohm, 1%, 0.1W, 0603	0603	CRCW060320K0FKEA	Vishay-Dale		
R30	1	3.32k	RES, 3.32k ohm, 1%, 0.1W, 0603	0603	CRCW06033K32FKEA	Vishay-Dale		
R31, R35	2	22k	RES 22K OHM 2W 1% 2512	2512	RHC2512FT22K0			
R32	1	2.43k	RES, 2.43k ohm, 1%, 0.1W, 0603	0603	CRCW06032K43FKEA	Vishay-Dale		
R33	1	51.1k	RES, 51.1k ohm, 1%, 0.1W, 0603	0603	CRCW060351K1FKEA	Vishay-Dale		
R36, R37	2	332k	RES, 332k ohm, 1%, 0.25W, 1206	1206	CRCW1206332KFKEA	Vishay-Dale		
R38	1	698	RES, 698 ohm, 1%, 0.25W, 1206	1206	CRCW1206698RFKEA	Vishay-Dale		
R40	1	2.49k	RES, 2.49k ohm, 1%, 0.1W, 0603	0603	CRCW06032K49FKEA	Vishay-Dale		
R41	1	8.66k	RES, 8.66k ohm, 1%, 0.1W, 0603	0603	CRCW06038K66FKEA	Vishay-Dale		
R42	1	63.4k	RES, 63.4k ohm, 1%, 0.1W, 0603	0603	CRCW060363K4FKEA	Vishay-Dale		
RT1, RT2, RT3, RT4	4	1 ohm	Thermistor NTC, 1 ohm, 20%, 15x7mm	15x7mm	B57237S109M	EPCOS Inc		
T1	1	120 uH	Transformer, 120 uH, TH	TH, 16-Leads, Body 41.9x49mm, Pitch 5mm	750315068	Würth Elektronik eiSos		

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
T2	1	900 uH	Drive Gate Transformer, 900uH	11.5x12x12.5mm	56PR3362	Vitec Corporation		
TP1, TP3, TP5	3	Red	Test Point, TH, Miniature, Red	Keystone5000	5000	Keystone		
TP2, TP4, TP6, TP7	4	Black	Test Point, TH, Miniature, Black	Keystone5001	5001	Keystone		
U1	1		High-Performance Resonant Mode Controller with Voltage Control, 50 % Duty Cycle, -40 to +125 degC, 8-pin SOIC (D), Green (RoHS & no Sb/Br)	D0008A	UCC25600D	Texas Instruments	Equivalent	None
U2	1		Opto-Isolator, 1 Channel, TH	DIP-4	PC817X4NSZ0F			
U3	1		PRECISION PROGRAMMABLE REFERENCE, DBZ0003A	DBZ0003A	TL431AIDBZ	Texas Instruments		None
U4	1		SINGLE DIFFERENTIAL COMPARATOR, DBV0005A	DBV0005A	TL331DBV	Texas Instruments		None
C22	0	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603	GRM188R71H102KA01D	MuRata		
C23	0	1500pF	CAP, CERM, 1500 pF, 100 V, +/- 5%, X7R, 0603	0603	06031C152JAT2A	AVX		

Notes:

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

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