

# PMP2057A BOM

Date: 01/21/2009

COUNT	RefDes	Value	Description	Size	Part Number	Mfr
2	C1	1000pF	Capacitor, Ceramic Disc, 250WV, 1000pF, Y5U ±20%	0.236 x 0.315	ECKNVS102MB	
2	C2	560U	Capacitor, Aluminum Electrolytic, 200V, [temp], [tol]	1.18 dia * 1.575 inch	ECO-S2DP561DA	Panasonic
2	C3	0.1uF	Capacitor, Leaded, 0.10 uF, 275 VAC, X2	6x18mm	B81130-C1104-Mxxx	
	C4	0.1uF	Capacitor, Leaded, 0.10 uF, 275 VAC, X2	6x18mm	B81130-C1104-Mxxx	
	C5	1000pF	Capacitor, Ceramic Disc, 250WV, 1000pF, Y5U ±20%	0.236 x 0.315	ECKNVS102MB	
	C6	560U	Capacitor, Aluminum Electrolytic, 200V, [temp], [tol]	1.18 dia * 1.575 inch	ECO-S2DP561DA	Panasonic
1	C7	100u	Capacitor, Aluminum Electrolytic, 25V	0.315 inch	25ZL100 8X7	Rubycon
1	C8	0.1 uF	Capacitor, Polyester, 0.1uF, 400V, 10%	0.670 X 0.295 inch	ECQ-E4104KZ	Panasonic
4	C9	.1u	Capacitor, Ceramic, 25-V, [temp], [tol]	0603	STD	muRata
	C10	.1u	Capacitor, Ceramic, 25-V, [temp], [tol]	0603	STD	muRata
2	C11	330uF	Capacitor, Aluminum Electrolytic, 35V	0.315 inch	35ZL330 10X16	Rubycon
	C12	.1u	Capacitor, Ceramic, 25-V, [temp], [tol]	0603	STD	muRata
	C13	.1u	Capacitor, Ceramic, 25-V, [temp], [tol]	0603	STD	muRata
1	C14	.1u	Capacitor, Ceramic, 250V, [temp], [tol]	1206	GRM42-6yyyxxxKvv	muRata
1	C15	.33u	Capacitor, Ceramic, 50V, [temp], [tol]	0805	std	muRata
2	C16	open	Capacitor, Ceramic, 50V, [temp], [tol]	0603	std	tdk
1	C17	22u	Capacitor, Aluminum Electrolytic, 16V	0.197 inch	16ZL22 5X7	Rubycon
1	C18	.1u	Capacitor, Ceramic, 16-V, [temp], [tol]	0805	std	muRata
1	C19	330p	Capacitor, Ceramic, 50V, [temp], [tol]	0603	std	tdk
1	C20	1u	Capacitor, Ceramic, 10V, [temp], [tol]	0805	std	muRata
1	C21	220p	Capacitor, Ceramic, 25-V, [temp], [tol]	0603	std	muRata
1	C22	1000p	Capacitor, Ceramic, 25-V, [temp], [tol]	0603	std	muRata
1	C23	.01u	Capacitor, Ceramic, 50V, [temp], [tol]	0603	std	tdk
	C24	open	Capacitor, Ceramic, 50V, [temp], [tol]	0603	std	tdk
1	C25	22u	Capacitor, Aluminum Electrolytic, 16V	0.197 inch	16ZL22 5X7	Rubycon
1	C26	1000pF	Capacitor, Ceramic Disk, 0.001-uF, 500VAC	0.72	440LD10	Vishay-Sprague
2	C27	56uF	Capacitor, Aluminum Electrolytic, 35V	0.248 inch	35ZL56 6.3X11	Rubycon
2	C28	3.3uF	Capacitor, Ceramic, 3.3-uF, 50-V, X7R, 15%	1210	Std	TDK
2	C29	100pF	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
2	C30	0.1uF	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
2	C31	100pF	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
1	C32	0.022F	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
1	C33	560uF	Capacitor, Aluminum Electrolytic, 6.3V	0.315 inch	06.3ZL560 8X11.5	Rubycon
1	C34	10uF	Capacitor, Ceramic, 10-uF, 6.3-V, X5R, 15%	1210	Std	TDK
2	C35	470pF	Capacitor, Ceramic, 470-pF, 50-V, X7R, 15%	0603	Std	TDK
1	C36	0.47uF	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
2	C37	3300pF	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
	C38	56uF	Capacitor, Aluminum Electrolytic, 35V	0.248 inch	35ZL56 6.3X11	Rubycon
	C39	3.3uF	Capacitor, Ceramic, 3.3-uF, 50-V, X7R, 15%	1210	Std	TDK
	C40	100pF	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
	C41	0.1uF	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
	C42	100pF	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
1	C43	0.033F	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
1	C44	330uF	Capacitor, Aluminum Electrolytic, 16V	0.315 inch	16ZL330 8X11.5	Rubycon
1	C45	2.2uF	Capacitor, Ceramic, 16V, [temp], [tol]	0805	STD	muRata
	C46	470pF	Capacitor, Ceramic, 470-pF, 50-V, X7R, 15%	0603	Std	TDK
1	C47	0.47uF	Capacitor, Ceramic, 0.01-uF, 50-V, X7R, 15%	0603	Std	TDK
	C48	3300pF	Capacitor, Ceramic, 50-V, X7R, 15%	0603	Std	TDK
1	C49	470uF	Capacitor, Aluminum Electrolytic, 35V	0.315 inch	35ZL470 10X20	Rubycon
1	C50	1uF	Capacitor, Ceramic, 50-V, X7R, 20%	1210	Std	Std
	C51	330uF	Capacitor, Aluminum Electrolytic, 35V	0.315 inch	35ZL330 10X16	Rubycon
1	C52	68uF	Capacitor, Aluminum Electrolytic, 6.3V	0.197 inch	6.3ZL68 5X7	Rubycon
1	C53	0.1uF	Capacitor, Ceramic, 0.1-uF, 50-V, X7R, 20%	0603	Std	Std
1	C54	0.1uF	Capacitor, Ceramic, 50-V, X7R, 20%	0603	Std	Std
2	C55	100pF	Capacitor, Ceramic, 50-V, X7R, 20%	0603	Std	Std
	C56	100pF	Capacitor, Ceramic, 50-V, X7R, 20%	0603	Std	Std
2	C57	0.1uF	Capacitor, Ceramic, 50-V, X7R, 20%	0603	Std	Std
	C58	0.1uF	Capacitor, Ceramic, 50-V, X7R, 20%	0603	Std	Std
1	C59	1uF	Capacitor, Ceramic, 16-V, X7R, 20%	0603	Std	Std
1	C60	1000pF	Capacitor, Ceramic, 50-V, X7R, 20%	0603	Std	Std
1	C61	.01u	Capacitor, Ceramic, 250-V, [temp], [tol]	0805	std	muRata
1	D1	4GBU04	Diode, Bridge Rectifier, 4 A, 400V	0.880 x 0.140 inch	4GBU04F	I&R
2	D2	MBRS240LT3	Diode, Schottky, 2A, 40V	SMB	MBRS240LT3	Motorola
4	D3	BAT54	Diode, Schottky, 200-mA, 30-V	SOT23	BAT54	Vishay-Liteon
2	D4	MURS160	Diode, Rectifier, 1-A, 600V	SMB	MURS160	on semi
	D5	BAT54	Diode, Schottky, 200-mA, 30-V	SOT23	BAT54	Vishay-Liteon
1	D6	MUR2020CT	Diode, Dual Ultrafast Rectifier, 200V, 20A	TO-220	MUR2020CT	On Semi
1	D7	MURS160	Diode, UltraFast Rectifier, 1-A, 600-V	SMB	MURS120T3	On Semi
	D8	BAT54	Diode, Schottky, 200-mA, 30-V	SOT23	BAT54	Vishay-Liteon
	D9	MURS160	Diode, Rectifier, 1-A, 600V	SMB	MURS160	on semi
	D10	BAT54	Diode, Schottky, 200-mA, 30-V	SOT23	BAT54	Vishay-Liteon
2	D11	BAS21	Diode, Switching, 200-mA, 200-V, 330-mW	SOT23	BAS21	Zetex
	D12	BAS16	Diode, Switching, 150-mA, 75-V, 350mW	SOT23	BAS16	Vishay-Liteon
2	D13	12v	Diode, Zener, 12-V, yy-mA, zz-mW, q%	SOT23	MMBZ5242BLT1	Motorola
	D14	12v	Diode, Zener, 12-V, yy-mA, zz-mW, q%	SOT23	MMBZ5242BLT1	Motorola

# PMP2057A BOM

Date: 01/21/2009

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2	D15	BAS16	Diode, Switching, 150-mA, 75-V, 350mW	SOT23	BAS16	Vishay-Liteon
2	D16	MURA140	Diode, Schottky, xx-mA, yy-V	SMA	STD	STD
	D17	MURA140	Diode, Schottky, xx-mA, yy-V	SMA	STD	STD
1	D18	48CTQ060	Diode, Dual Schottky, 40A, 60V	TO-220	48CTQ060	IR
	D19	BAS21	Diode, Switching, 200-mA, 200-V, 330-mW	SOT23	BAS21	Zetex
1	D20	MBRS340	Diode, Schottky, 3-A, 40-V	SMC	MBRS340T3	On Semi
1	D21	Green	Diode, LED, Green, 2.1-V, 25-mcd, SM	1210	SML-LX2832GC-TR	Lumex
1	D22	Red	Diode, LED, Red, 1.7-V, 40-mcd, SM	1210	SML-LX2832SRC-TR	Lumex
1	D23	5.6v	Diode, Zener, 12-V, yy-mA, zz-mW, q%	SOT23	MMBZ5232BLT1	Motorola
	D24	MBRS240LT3	Diode, Schottky, 2A, 40V	SMB	MBRS240LT3	Motorola
1	F1	4A/250V	Fuse, TR5 Series, 4A, 250V	0.335	370 1400 041	Wickmann
1	J1		Connector, AC Board mount, 9mm	1.97 x 0.79	703W-00/54	Qualtek Electronics
1	J2	PTC36SAAN	Header, 2-pin, 100mil spacing, (36-pin strip)	0.100 inch x 2	PTC36SAAN	Sullins
2	J3	ED1514	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25 inch	ED1514	OST
	J4	ED1514	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25 inch	ED1514	OST
2	J5	ED1514	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25	ED1514	OST
	J6	ED1514	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25	ED1514	OST
1	J7	ED1515	Terminal Block, 3-pin, 6-A, 3.5mm	0.41 x 0.25	ED1515	OST
2	L1	200uH	Common Mode Inductor, 200uH, 1.6A	0.690 * 0.610	UU9.8H-201	GCI
	L2	200uH	Common Mode Inductor, 200uH, 1.6A	0.690 * 0.610	UU9.8H-201	GCI
1	L3	G065011LF	Inductor, 47uH, 8A @ 10 kHz	1946 Dia.	G065011LF	GCI
1	L4	330uH	Inductor, SMT, 68-uH, 2-A, 0.06-ohm	0.492 sq"	DR74-331	Coiltronics
2	L5	470U	Inductor, SMT, yyA, zzmilohm	0.300 sq"	DR74-471	Coiltronics
1	L6	22uH	Inductor, SMT, yyA, zzmilohm	0.492 sq"	DR127-220R	Coiltronics
	L7	470u	Inductor, SMT, yyA, zzmilohm	0.300 sq"	DR74-471	Coiltronics
4	Q1	3904	Bipolar, NPN, xx-V, yy-mA, zz-W	SOT23		
2	Q2	IRF840A	MOSFET, N-ch, 500-V, yy-A, .85-milliOhms	TO-220V		
2	Q3	3906	Bipolar, PNP, xx-V, yy-mA, zz-W	SOT23		
	Q4	3904	Bipolar, NPN, xx-V, yy-mA, zz-W	SOT23		
	Q5	IRF840A	MOSFET, N-ch, 500-V, yy-A, .85-milliOhms	TO-220V		
	Q6	3906	Bipolar, PNP, xx-V, yy-mA, zz-W	SOT23		
	Q7	3904	Bipolar, NPN, xx-V, yy-mA, zz-W	SOT23		
	Q8	3904	Bipolar, NPN, xx-V, yy-mA, zz-W	SOT23		
2	Q9	SI2319DS	MOSFET, P-ch, 40V, yy-A, 120-milliOhms	SOT23	STD	STD
	Q10	SI2319DS	MOSFET, P-ch, 40V, yy-A, 120-milliOhms	SOT23	STD	STD
1	Q11	Si4401	MOSFET, P-ch, 40-V, 10.6-A, 16-milohm	SO8	Si4401	Siliconix
1	Q12	MMBT3904LT1	Bipolar, NPN, 40-V, 200-mA, 0.35-W	SOT23	MMBT3904LT1	On Semi
1	Q13	MMBT3906LT1	Bipolar, PNP, xx-V, yy-mA, zz-W	SOT23	MMBT3906LT1	On Semi
1	Q14	2N7002	MOSFET, N-ch, 60-V, 115-mA, 1.2-Ohms	SOT23	2N7002DICT	Vishay-Liteon
2	R1	499K	Resistor, Chip, 1/10W, yy%	0805	Std	Std
1	R2	200k	Resistor, Chip, 1/8-W, yy%	1206	Std	Std
1	R3	200k	Resistor, Chip, 1/8-W, yy%	1206	Std	Std
	R4	499K	Resistor, Chip, 1/10W, yy%	0805	Std	Std
2	R5	100k	Resistor, Chip, 1/8W, yy%	1206	Std	Std
	R6	100k	Resistor, Chip, 1/8W, yy%	1206	Std	Std
2	R7	100	Resistor, Chip, 1/16-W, yy%	0603	Std	Std
	R8	100	Resistor, Chip, 1/16-W, yy%	0603	Std	Std
1	R9	20k	Resistor, Chip, 1/8W, yy%	1206	Std	Std
1	R10	open	Resistor, Chip, 1/8W, yy%	1206	Std	Std
1	R11	4.99	Resistor, Chip, 1/16W, yy%	0603	Std	Std
2	R12	0.15	Resistor, Chip, 1/8W, yy%	1206	Std	Std
	R13	0.15	Resistor, Chip, 1/8W, yy%	1206	Std	Std
1	R14	7.5k	Resistor, Chip, 1/10W, yy%	0805	Std	Std
1	R15	10K	Resistor, Chip, 1/10W, yy%	0805	Std	Std
4	R16	10k	Resistor, Chip, 1/16W, yy%	0603	Std	Std
1	R17	499	Resistor, Chip, 1/16-W, yy%	0603	Std	Std
	R18	10k	Resistor, Chip, 1/16W, yy%	0603	Std	Std
1	R19	49.9k	Resistor, Chip, 1/16-W, yy%	0603	Std	Std
1	R20	294k	Resistor, Chip, 1/16-W, yy%	0603	Std	Std
1	R21	1k	Resistor, Chip, 1/16-W, yy%	0603	Std	Std
1	R22	4.99k	Resistor, Chip, 1/16W, yy%	0603	Std	Std
2	R23	75k	Resistor, Chip, 1/16W, yy%	0603	Std	Std
2	R24	100k	Resistor, Chip, 1/16W, yy%	0603	Std	Std
1	R25	24.9k	Resistor, Chip, 1/16-W, yy%	0603	Std	Std
	R26	75k	Resistor, Chip, 1/16W, yy%	0603	Std	Std
	R27	10k	Resistor, Chip, 1/16W, yy%	0603	Std	Std
1	R28	1k	Resistor, Chip, 1/16W, yy%	0603	Std	Std
4	R29	100K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
2	R30	0.05	Resistor, Chip, 1/2-W, 1%	2010	Std	Std
2	R31	1.0K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
2	R32	0	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
	R33	100K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R34	30.1K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R35	37.4K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
2	R36	49.9	Resistor, Chip, 1/16-W, 1%	0603	Std	Std

# PMP2057A BOM

Date: 01/21/2009

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	R37	10K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
	R38	100K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
	R39	0.05	Resistor, Chip, 1/2-W, 1%	2010	Std	Std
	R40	1.0K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
	R41	0	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
	R42	100K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
	R43	10K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R44	100K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
	R45	49.9	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R46	6.19K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R47	49.9	Resistor, Chip, 1-W, 1%	2512	WSL-2512-52D3 1% R86	Vishay
1	R48	1.0K	Resistor, Chip, 1/10-W, 1%	0805	Std	Std
1	R49	453K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R50	4.53K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R51	49.9K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R52	2.32K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R53	3.01k	Resistor, Chip, 1/10-W, 1%	0805	Std	Std
1	R55	33.2K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
3	R56	10K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R57	73.2K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
2	R58	1.0K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R59	1.0K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
2	R60	0.2	Resistor, Chip, 1/8W, yy%	1206	Std	Std
	R61	0.2	Resistor, Chip, 1/8W, yy%	1206	Std	Std
1	R62	23.2K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R63	510K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
	R64	1.0K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
1	R65	510K	Resistor, Chip, 1/16-W, 1%	0603	Std	Std
	R66	100k	Resistor, Chip, 1/16W, yy%	0603	Std	Std
	R67	10k	Resistor, Chip, 1/16W, yy%	0603	Std	Std
1	T1	G034251	Transformer, Gate Drive	0.520 x 0.530	G034251	GCI
1	T2	G065091LF	Transformer, Forward, 460uH	1320 x 1378 inch	G065091LF	GCI
9	TP1	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
3	TP2	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
9	TP3	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP4	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP5	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP6	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP7	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP8	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP9	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP10	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP11	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP12	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP13	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP14	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
	TP15	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP16	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP17	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP18	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP19	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
	TP20	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP21	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
1	U1	UCC3813-4D	IC, Low-Power BiCMOS Current-mode PWM, Von = xx V	SO8	UCC3813-4D	TI
1	U2	H11A817B	IC, Optocoupler, 5300-V, 80-160% CTR	0.380 x 0.180	H11A817B	QT Optoelectronics
1	U3	TL431DBZ	IC, Precision Adjustable Shunt Regulator	SOT23-3	TL431DBZ	TI
2	U4	TPS40200D	IC, Low Cost Sync Buck Controller	SO-8	TPS40200D	TI
	U5	TPS40200D	IC, Low Cost Sync Buck Controller	SO-8	TPS40200D	TI
1	U6	TL750L05C	IC, Low Drop Out Regulator, 5 volt - 12 volt options	SOIC8	TL750L05CD	Texas Instruments
1	U7	BQ2004HSN	IC, Fast Charge	SO16	BQ2004HSN	TI

- Notes:
1. These assemblies are ESD sensitive, ESD precautions shall be observed.
  2. These assemblies must be clean and free from flux and all contaminants.  
Use of no clean flux is not acceptable.
  3. These assemblies must comply with workmanship standards IPC-A-610 Class 2.
  4. Ref designators marked with an asterisk ("\*\*") cannot be substituted.  
All other components can be substituted with equivalent MFG's components.

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