

12Vin 1Vout 200/240A 6 Phases TPS53661 / CSD95372B(x6)

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC81	1		Printed Circuit Board		PMP9738	Any	-	-
C1, C2, C3	3	470uF	CAP, AL, 470uF, 35V, +/-20%, TH	10x20	35ZL470MEFC10X20	Rubycon		
C4, C5, C6, C7	4	0.1uF	CAP, CERM, 0.1uF, 50V, +/-20%, X7R, 0402	0402	C1005X7R1H104M	TDK		
C8	1	1uF	CAP, CERM, 1uF, 10V, +/-10%, X5R, 0402	0402	GRM155R61A105KE15D	MuRata		
C9, C10, C11, C12, C13, C14, C15, C16, C17, C18	10	470uF	CAP, AL, 470uF, 2.5V, +/-20%, 9 ohm, SMD	7.3x1.8x4.3mm	EEFSX0E471ER	Panasonic		
C19, C20, C21, C22, C23, C24, C25, C26, C27, C28	10	100uF	CAP, CERM, 100uF, 6.3V, +/-20%, X5R, 1210	1210	C1210C107M9PACTU	Kemet		
C29, C31	2	10uF	CAP, CERM, 10uF, 25V, +/-20%, X7R, 1210	1210	C3225X7R1E106M	TDK		
C30	1	1uF	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603	GRM188R71E105KA12D	MuRata		
C32	1	15pF	CAP, CERM, 15pF, 50V, +/-5%, C0G/NP0, 0402	0402	GRM1555C1H150JA01D	MuRata		
C41	1	6800pF	CAP, CERM, 6800pF, 100V, +/-10%, X7R, 0603	0603	06031C682KAT2A	AVX		
C42	1	1000pF	CAP, CERM, 1000pF, 50V, +/-10%, X7R, 0402	0402	C1005X7R1H102K	TDK		
C43, C44, C45, C48	4	1uF	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0603	0603	C1608X5R1E105K080A C	TDK		
C46	1	10pF	CAP, CERM, 10pF, 50V, +/-5%, C0G/NP0, 0402	0402	GRM1555C1H100JA01D	MuRata		
C47	1	1500pF	CAP, CERM, 1500pF, 50V, +/-10%, X7R, 0402	0402	GRM155R71H152KA01D	MuRata		
C49	1	0.33uF	CAP, CERM, 0.33uF, 6.3V, +/-10%, X5R, 0402	0402	GRM155R60J334KE01D	MuRata		
C50, C51	2	4.7uF	CAP, CERM, 4.7uF, 10V, +/-20%, X5R, 0402	0402	GRM155R61A475M	MuRata		
C52	1	2200pF	CAP, CERM, 2200pF, 50V, +/-10%, X7R, 0402	0402	C1005X7R1H222K	TDK		
C100, C200, C300, C400, C500, C600	6	1000pF	CAP, CERM, 1000pF, 25V, +/-5%, C0G/NP0, 0402	0402	C1005C0G1E102J	TDK		
C101, C102, C103, C104, C105, C201, C202, C203, C204, C205, C301, C302, C303, C304, C305, C401, C402, C403, C404, C405, C501, C502, C503, C504, C505, C601, C602, C603, C604, C605	30	10uF	CAP, CERM, 10uF, 25V, +/-10%, X7R, 1206	1206	GRM31CR71E106KA12L	MuRata		
C106, C206, C306, C406, C506, C606	6	3300pF	CAP, CERM, 3300pF, 50V, +/-10%, X7R, 0402	0402	C1005X7R1H332K	TDK		
C110, C210, C310, C410, C510, C610	6	0.1uF	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	0603	C0603C104J3RACTU	Kemet		
C111, C211, C311, C411, C511, C611	6	10uF	CAP, CERM, 10uF, 6.3V, +/-20%, X5R, 0603	0603	C0603C106M9PACTU	Kemet		
C112, C212, C312, C412, C512, C612	6	0.1uF	CAP, CERM, 0.1uF, 16V, +/-10%, X5R, 0402	0402	GRM155R61C104KA88D	MuRata		
C113, C213, C313, C413, C513, C613	6	1500pF	CAP, CERM, 1500pF, 100V, +/-10%, X7R, 0805	0805	08051C152KAT2A	AVX		
D1, D3	2	30V	Diode, Schottky, 30V, 0.5A, SOD-123	SOD-123	MBR0530T1G	ON Semiconductor		
D2	1	30V	Diode, Schottky, 30V, 0.2A, SOD-323	SOD-323	BAT54WS-7-F	Diodes Inc.		
D4	1	Red	LED, Red, SMD	LED 0805	LTST-C170KRKT	Lite-On		
H1, H2, H3, H4	4		Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw	NY PMS 440 0025 PH	B&F Fastener Supply	-	-
H5, H6, H7, H8	4		Standoff, Hex, 0.5"L #4-40 Nylon	Standoff	1902C	Keystone	-	-
H9, H10, H11, H12	4		Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon	SJ-5303 (CLEAR)	3M		
J1, J2, J5, J6, J7, J8, J10	7	GSLU-70	Lug, Solderless, #2 - #8 AWG, 1/4", Copper	1.55 x 0.50 inch	GSLU-70	ILSCO		

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J3, J47	2	PEC02SAAN	Header, Male 2-pin, 100mil spacing,	0.100 inch x 2	PEC02SAAN	Sullins		
J4, J9, J45	3		Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	7.0x8.2x6.5mm	ED555/2DS	On-Shore Technology		
J41	1		Header (shrouded), 100mil, 5x2, Gold, TH	5x2 Shrouded header	5103308-1	TE Connectivity		
J42, J46	2	PEC05DAAN	Header, Male 2x5-pin, 100mil spacing	0.100 inch x 5 X 2	PEC05DAAN	Sullins		
J43	1	1x3	Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator	PBC03SAAN	PBC03SAAN	Sullins Connector Solutions		
J44	1	PEC03SAAN	Header, Male 3-pin, 100mil spacing,	0.100 inch x 3	PEC03SAAN	Sullins		
L1	1	6.8 uH	Inductor, SMT, yyA, zzmllioh	0.276 sq inch	SLF7032T-xxx	TDK		
L100, L200, L300, L400, L500, L600	6	210 uH	Inductor, Low-Profile, High-Current ±20%	2525/5050	FP1308R3-R21	Cooper Bussman		
LBL1, LBL41	2		Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650"H x 0.200"W	THT-14-423-10	Brady	-	-
Q1	1	25V	MOSFET, N-CH, 25V, 40A, SON 5x6mm	SON 5x6mm	CSD16556Q5B	Texas Instruments		None
R1, R2, R3, R4, R6, R7, R12, R13	8	0.002	RES, 0.002 ohm, 1%, 2W, 2512	2512	CSNL2512FT2L00	Stackpole Electronics Inc		
R5	1	8.06k	RES, 8.06k ohm, 1%, 0.063W, 0402	0402	CRCW04028K06FKED	Vishay-Dale		
R8, R51, R52, R53	4	10.0k	RES, 10.0k ohm, 1%, 0.063W, 0402	0402	CRCW040210K0FKED	Vishay-Dale		
R9, R11	2	1.00k	RES, 1.00k ohm, 1%, 0.063W, 0402	0402	CRCW04021K00FKED	Vishay-Dale		
R10	1	200k	RES, 200k ohm, 1%, 0.063W, 0402	0402	CRCW0402200KFKED	Vishay-Dale		
R14	1	330	RES, 330 ohm, 5%, 0.063W, 0402	0402	CRCW0402330RJNED	Vishay-Dale		
R15, R16	2	49.9	RES, 49.9 ohm, 1%, 0.063W, 0402	0402	CRCW040249R9FKED	Vishay-Dale		
R17, R18, R19, R20, R22, R23	6	1.00Meg	RES, 1.00Meg ohm, 1%, 0.063W, 0402	0402	CRCW04021M00FKED	Vishay-Dale		
R21	1	51	RES, 51 ohm, 5%, 0.063W, 0402	0402	CRCW040251R0JNED	Vishay-Dale		
R24	1	261k	RES, 261k ohm, 1%, 0.063W, 0402	0402	CRCW0402261KFKED	Vishay-Dale		
R25	1	294k	RES, 294k ohm, 1%, 0.063W, 0402	0402	CRCW0402294KFKED	Vishay-Dale		
R44	1	402k	RES, 402k ohm, 1%, 0.063W, 0402	0402	CRCW0402402KFKED	Vishay-Dale		
R45	1	16.5k	RES, 16.5k ohm, 1%, 0.063W, 0402	0402	CRCW040216K5FKED	Vishay-Dale		
R46, R49	2	9.31k	RES, 9.31k ohm, 1%, 0.063W, 0402	0402	CRCW04029K31FKED	Vishay-Dale		
R47	1	14.0k	RES, 14.0k ohm, 1%, 0.063W, 0402	0402	CRCW040214K0FKED	Vishay-Dale		
R48	1	1.15k	RES, 1.15k ohm, 1%, 0.063W, 0402	0402	CRCW04021K15FKED	Vishay-Dale		
R55, R56, R57, R60, R62	5	20.0k	RES, 20.0k ohm, 1%, 0.063W, 0402	0402	CRCW040220K0FKED	Vishay-Dale		
R58, R61	2	150k	RES, 150k ohm, 1%, 0.063W, 0402	0402	CRCW0402150KFKED	Vishay-Dale		
R63	1	24.3k	RES, 24.3k ohm, 1%, 0.063W, 0402	0402	CRCW040224K3FKED	Vishay-Dale		
R64, R65, R66, R71, R81, R82, R83, R84, R85, R86	10	100	RES, 100 ohm, 5%, 0.063W, 0402	0402	CRCW0402100RJNED	Vishay-Dale		
R67	1	100k	RES, 100k ohm, 1%, 0.063W, 0402	0402	CRCW0402100KFKED	Vishay-Dale		
R68	1	19.1k	RES, 19.1k ohm, 1%, 0.063W, 0402	0402	CRCW040219K1FKED	Vishay-Dale		
R69	1	2.43k	RES, 2.43k ohm, 1%, 0.063W, 0402	0402	CRCW04022K43FKED	Vishay-Dale		
R70	1	121k	RES, 121k ohm, 1%, 0.063W, 0402	0402	CRCW0402121KFKED	Vishay-Dale		
R72, R73	2	10	RES, 10 ohm, 5%, 0.063W, 0402	0402	CRCW040210R0JNED	Vishay-Dale		
R74	1	1.0	RES, 1.0 ohm, 5%, 0.063W, 0402	0402	CRCW04021R00JNED	Vishay-Dale		
R100, R200, R300, R400, R500, R600	6	0	RES, 0 ohm, 5%, 0.063W, 0402	0402	RC0402JR-070RL	Yageo America		
R110, R210, R310, R410, R510, R610	6	2.2	RES, 2.2 ohm, 5%, 0.063W, 0402	0402	CRCW04022R20JNED	Vishay-Dale		
R113, R213, R313, R413, R513, R613	6	1.0	RES, 1.0 ohm, 5%, 0.5W, 1206	1206	CRM1206-JW-1R0ELF	Bourns		
TH1, TH2	2		Thru Hole, 15 mil, plated					
TP1, TP3, TP4, TP6	4	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone		
TP2, TP5, TP7	3	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone		
TP8	1	131-4244-00	Adaptor, 3.5-mm probe clip (or 131-5031-00)	0.200 inch	131-4244-00	Tektronix		
TP100, TP200, TP300, TP400, TP500, TP600	6	SMT	Test Point, Miniature, SMT	Testpoint_Keystone_Miniature	5015	Keystone		
TP301, TP601	2	5016	Test Point, SM, 0.150 x 0.090	0.185 x 0.135 inch	5016	Keystone		
U1	1	TLC555CD	IC, Timer, Low-Power CMOS	SO8	TLC555CD	TI		None
U2	1	UCC37324D	IC, Dual 4-A High Speed Low-Side Power MOSFET Drivers	SO-8	UCC37324D	TI		None
U3	1		Buck Adjustable Regulator with 3.1 to 17 V Input and 1.2 to 16 V Output, -40 to 85 degC, 16-Pin QFN (RSA), Green (RoHS & no Sb/Br)	RSA0016B	TPS62110RSAR	Texas Instruments	Equivalent	None
U41	1		6-Phase, D-CAP+ Step-Down VR12.x Server CPU VCORE and DDR Memory Controller with PMBus Interface, RSB0040E	RSB0040E	TPS53661RSB	Texas Instruments		None
U42	1		Cap-Free, NMOS, 250mA Low Dropout Regulator with Reverse Current Protection, DBV0005A	DBV0005A	TPS73233DBV	Texas Instruments		None
U100, U200, U300, U400, U500, U600	6		Synchronous Buck NexFET Power Stage, DMC0012A	DMC0012A	CSD95372BQ5M	Texas Instruments		None
FID1, FID2, FID3	0		Fiducial mark. There is nothing to buy or mount.	Fiducial	N/A	N/A		

Notes:

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

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