

36-72Vin to 5V/2A Sync Flyback

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
!PCB	1		Printed Circuit Board		PMP8917	Any	-	-
C1, C12	2	2200pF	CAP, CERM, 2200pF, 2000V, +/-10%, X7R, 1812	1812	C4532X7R3D222K	TDK		
C2	1	22uF	CAP, AL, 22uF, 100V, +/-20%, 1.3 ohm, SMD	SMT Radial F	EEE-FK2A220P	Panasonic		
C3, C4	2	2.2uF	CAP, CERM, 2.2uF, 100V, +/-10%, X7R, 1210	1210	GRM32ER72A225KA35L	MuRata		
C5	1	0.1uF	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0805	0805	C0805C104K1RACTU	Kemet		
C6, C7, C8	3	100uF	CAP, CERM, 100uF, 6.3V, +/-20%, X5R, 1210	1210	C3225X5R0J107M	TDK		
C9	1	1uF	CAP, CERM, 1uF, 6.3V, +/-10%, X5R, 0603	0603	C1608X5R0J105K	TDK		
C10, C17	2	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X8R, 0603	0603	C1608X8R1E104K	TDK		
C11	1	1000pF	CAP, CERM, 1000pF, 50V, +/-5%, C0G/NP0, 0603	0603	C0603C102J5GACTU	Kemet		
C13	1	22uF	CAP, AL, 22uF, 16V, +/-20%, 1.35 ohm, SMD	SMT Radial B	EEE-FK1C220UR	Panasonic		
C14, C16	2	1uF	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0805	0805	C2012X5R1E105K	TDK		
C15	1	1000pF	CAP, CERM, 1000pF, 50V, +/-10%, X8R, 0603	0603	C1608X8R1H102K	TDK		
C18	1	0.01uF	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	0603	C1608X7R1H103K	TDK		
C19	1	100pF	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	0603	C1608C0G1H101J	TDK		
C20	1	0.01uF	CAP, CERM, 0.01uF, 25V, +/-5%, C0G/NP0, 0603	0603	C1608C0G1E103J	TDK		
C21	1	0.027uF	CAP, CERM, 0.027uF, 25V, +/-10%, X7R, 0603	0603	GRM188R71E273KA01D	MuRata		
C22	1	1uF	CAP, CERM, 1uF, 16V, +/-10%, X5R, 0603	0603	C1608X5R1C105K	TDK		
D1	1	0.43V	Diode, Schottky, 30V, 0.5A, SOD-123	SOD-123	MBR0530T1G	ON Semiconductor		
D2, D3	2	15V	Diode, Zener, 15V, 500mW, SOD-123	SOD-123	MMSZ5245B-7-F	Diodes Inc.		
D4	1	0.0875V	Diode, Ultrafast, 200V, 1A, SMA	SMA	MURA120T3G	ON Semiconductor		
D5	1	1V	Diode, Switching, 100V, 0.2A, SOD-123	SOD-123	MMSD4148T1G	ON Semiconductor		
D6	1	0.35V	Diode, Schottky, 30V, 0.2A, SOD-323	SOD-323	BAT54HT1G	ON Semiconductor		
D7	1	0.65V	Diode, Schottky, 30V, 0.2A, SOT-23	SOT-23	BAT54S-7-F	Diodes Inc.		
L1	1	10uH	Inductor, Shielded Drum Core, Ferrite, 10uH, 1.25A, 0.2 ohm, SMD	LPS4018	LPS4018-103MLB	Coilcraft		
Q1	1	30V	MOSFET, N-CH, 30V, 65A, SON 5x6mm	SON 5x6mm	CSD17527Q5A	Texas Instruments		None
Q2	1		MOSFET N-CH 150V 2.3A 6SSOT	SOT-23-6	FDC86244	Fairchild Semiconductor		None
R1	1	10.0	RES, 10.0 ohm, 1%, 0.1W, 0603	0603	CRCW060310R0FKEA	Vishay-Dale		
R2	1	39k	RES, 39k ohm, 5%, 0.125W, 0805	0805	CRCW080539K0JNEA	Vishay-Dale		
R3	1	10.0	RES, 10.0 ohm, 0.5%, 0.1W, 0805	0805	RR1220Q-100-D	Susumu Co Ltd		
R4	1	20	RES, 20 ohm, 5%, 0.125W, 0805	0805	CRCW080520R0JNEA	Vishay-Dale		
R5	1	0	RES, 0 ohm, 5%, 0.1W, 0603	0603	CRCW06030000Z0EA	Vishay-Dale		
R6	1	10.0	RES, 10.0 ohm, 1%, 0.125W, 0805	0805	CRCW080510R0FKEA	Vishay-Dale		
R7	1	70.6k	RES, 70.6k ohm, 0.5%, 0.1W, 0603	0603	RT0603DRE0770K6L	Yageo America		
R8	1	10.0	RES, 10.0 ohm, 1%, 0.25W, 1206	1206	CRCW120610R0FKEA	Vishay-Dale		
R9, R15	2	1.00k	RES, 1.00k ohm, 1%, 0.1W, 0603	0603	CRCW06031K00FKEA	Vishay-Dale		
R10	1	0.43	RES, .43 OHM 1/4W 5% 1206 SMD	1206	RCWL1206R430JMEA	Vishay-Dale		
R11	1	2.87k	RES, 2.87k ohm, 1%, 0.1W, 0603	0603	CRCW06032K87FKEA	Vishay-Dale		
R12	1	25.5k	RES, 25.5k ohm, 1%, 0.1W, 0603	0603	CRCW060325K5FKEA	Vishay-Dale		
R13	1	681	RES, 681 ohm, 1%, 0.1W, 0603	0603	CRCW0603681RFKEA	Vishay-Dale		
R14, R17	2	10.0k	RES, 10.0k ohm, 1%, 0.1W, 0603	0603	CRCW060310K0FKEA	Vishay-Dale		
R16	1	14.7k	RES, 14.7k ohm, 1%, 0.1W, 0603	0603	CRCW060314K7FKEA	Vishay-Dale		
R18	1	14.3k	RES, 14.3k ohm, 1%, 0.1W, 0603	0603	CRCW060314K3FKEA	Vishay-Dale		
T1	1	130 uH	Transformer, Flyback, 198 uH	699x500x530mil	NA6223-AL	Coilcraft	PA6340-AL	Coilcraft
TP1, TP2, TP3, TP4	4		PCB Pin, Swage Mount, TH	3104-2	3104-2-00-34-00-00-08-0	Mill-Max		
U1	1		100V Current Mode PWM Controller, 10-pin LLP	SDC10A	LM5020SD-1	National Semiconductor		
U2	1		Full Pitch Mini-Flat Package Transistor Output Optocoupler	FOD121	FODM121	Fairchild Semiconductor		
U5	1		Adjustable Precision Zener Shunt Regulator, 3-pin SOT-23	MF03A	LM431ACM3	National Semiconductor		

Notes:

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

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