



LM5122 Isolated Synchronous Flyback

Designator	Description	Manufacturer	PartNumber	Quantity
!PCB1	Printed Circuit Board	Any	PMP9256	1
C8	CAP, CERM, 560pF, 50V, +/-5%, C0G/NP0, 0603	MuRata	GRM1885C1H561JA01D	1
C11, Chf	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	MuRata	GRM1885C1H101JA01D	2
C12, C19, C20	CAP, CERM, 0.047uF, 25V, +/-10%, X7R, 0603	MuRata	GRM188R71E473KA01D	3
C13	CAP, CERM, 0.47uF, 100V, +/-10%, X7R, 0805	MuRata	GRM21BR72A474KA73L	1
C14, C15	CAP, CERM, 47pF, 50V, +/-5%, C0G/NP0, 0603	MuRata	GRM1885C1H470JA01D	2
C21	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	TDK	C1608X7R1C105K	1
C23	CAP, CERM, 10uF, 16V, +/-10%, X5R, 0805	MuRata	GRM21BR61C106KE15L	1
C24	CAP, CERM, 100pF, 100V, +/-1%, C0G/NP0, 0805	AVX	08051A101FAT2A	1
C25	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	MuRata	GRM188R71H104KA93D	1
C26, C27	CAP, CERM, 2200pF, 1000V, +/-10%, X7R, 1210	Vishay-Vitramon	VJ1210Y222KXGAT5Z	2
Cin1, Cin2, Cin3	CAP, AL, 220uF, 63V, +/-20%, 0.16 ohm, SMD	Panasonic	EEV-FK1J221Q	3
Cin4, Cin5	CAP, CERM, 1uF, 100V, +/-20%, C Series, 1206	TDK	C3216X7R2A105M	2
COMP, EN, PRI, SEC, SS	Test Point, TH, Miniature, White, Test Point, TH, Miniature, White, Test Point, Miniature, White, TH, Test Point, Miniature, White, TH, Test Point, TH, Miniature, White	Keystone	5002	5
Cout1, Cout2, Cout3	CAP, AL, 120uF, 20V, +/-20%, 0.025 ohm, SMD	Sanyo	20SVPF120M	3
Cout4, Cx1	CAP, CERM, 22uF, 16V, +/-10%, X5R, 1206	MuRata	GRM31CR61C226KE15L	2
Csb1, Csb2	CAP, CERM, 820pF, 100V, +/-10%, X7R, 0603	MuRata	GRM188R72A821KA01D	2
Css	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	MuRata	GRM188R71H103KA01D	1
Cvcc	CAP, CERM, 4.7uF, 10V, +/-10%, X5R, 0603	Kemet	C0603C475K8PACTU	1
D1	Diode, Schottky, 30V, 0.2A, SOD-323	ON Semiconductor	BAT54HT1G	1
D2, D3	DIODE SWITCH 80V 0.25A SOD323-2	Infineon Technologies	BAS 16-03W E6327	2
Dx1	Diode, Zener, 5.1V, 200mW, SOD-323	Diodes Inc.	MMSZ5231BS-7-F	1
FID1, FID2	Fiducial mark. There is nothing to buy or mount.	N/A	N/A	2
H1, H2, H5, H6	Standoff, Hex, 0.5"L #4-40 Nylon	Keystone	1902C	4
H3, H4, H7, H8	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	B&F Fastener Supply	NY PMS 440 0025 PH	4
LBL1	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	Brady	THT-14-423-10	1
PGND3, PGND4, V-, VO-	Test Point, TH, Multipurpose, Black	Keystone	5011	4
PGND, PGND2, VIN, VOUT	Standard Banana Jack, Uninsulated, 5.5mm	Keystone	575-4	4

Designator	Description	Manufacturer	PartNumber	Quantity
Q1, Q2, Q101	MOSFET, N-CH, 150V, 50A, PG-TDSON-8	Infineon Technologies	BSC190N15NS3 G	3
Q3	Transistor, PNP, 40V, 0.2A, SOT-23	Fairchild Semiconductor	MMBT3906	1
R2, R3	RES, 182 ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW0603182RFKEA	2
R5, R6, R11	RES, 0 ohm, 5%, 0.1W, 0603	Panasonic	ERJ-3GEY0R00V	3
R9, Rsyn	RES, 40.2k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060340K2FKEA	2
R10	RES, 3.3 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW06033R30JNEA	1
R12	RES, 8.66k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW06038K66FKEA	1
R13	RES, 100k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW0603100KFKEA	1
R19, R20	RES, 2.2 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW06032R20JNEA	2
R21	RES, 10.0 ohm, 1%, 0.125W, 0805	Vishay-Dale	CRCW080510R0FKEA	1
R22, R30, Rt2, Rx1	RES, 1.00 k, 1%, 0.1 W, 0603, RES, 1.00k ohm, 1%, 0.1W, 0603, RES, 1.00k ohm, 1%, 0.1W, 0603, RES, 1.00k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW06031K00FKEA	4
R23	RES, 47.5k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060347K5FKEA	1
R25	RES, 10, 5%, 0.1 W, 0603	Vishay-Dale	CRCW060310R0JNEA	1
R26	RES, 3.74 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06033K74FKEA	1
R27	RES, 1.24 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06031K24FKEA	1
R31	RES, 4.99k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW06034K99FKEA	1
R101	RES, 47.5, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060347R5FKEA	1
Rc	RES, 20.0k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060320K0FKEA	1
Rs1, Rs2	RES, 0.015, 1%, 1 W, 2512	Vishay-Dale	WSL2512R0150FEA	2
Rsb1, Rsb2, Rsb3, Rsb4	RES 34 OHM 1/2W 1% 1210 SMD	Panasonic Electronic Components	ERJ-14NF34R0U	4
Rt	RES, 10.0k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060310K0FKEA	1
SGND	Test Point, TH, Miniature, Black	Keystone	5001	1
U1	Synchronous Boost Controller	Texas Instruments	LM5122MHX/NOPB	1
U2	IC, Optocoupler, 5000V, 80-160% CTR	Fairchild Optoelectronics Group	FOD817ASD	1
U3	Low-Voltage (1.24V) Adjustable Precision Shunt Regulator, 5-pin SOT-23	Texas Instruments	LMV431ACM5/NOPB	1
V+, VO+	Test Point, Multipurpose, Red, TH	Keystone	5010	2
X1		Coilcraft Inc	PA6605-AL	1
X2	SMT Gate Drive Transformer	Coilcraft	DA2319-ALB	1

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