

96-332Vdc 8W Flyback w/ post-regulations

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC	1		Printed Circuit Board		PMP8930	Any	-	-
C1, C22	2	22uF	CAP ALUM 22UF 450V 20% RADIAL	10x20	EKXJ451ELL220MJ35S			
C2, C3	2	220uF	CAP, AL, 220uF, 25V, +/-20%, 27 ohm, SMD	8x10	EEHZA1E221P	Panasonic		
C4	1	0.33uF	CAP, CERM, 0.33uF, 25V, +/-10%, X5R, 0805	0805	08053D334KAT2A	AVX		
C5	1	1uF	CAP, CERM, 1uF, 10V, +/-10%, X5R, 0402	0402	GRM155R61A105KE15D	MuRata		
C6	1	6800uF	CAP ALUM 6800UF 25V 20% RADIAL	16x35.5	25PX6800M16X31.5	Rubycon		
C7	1	10uF	CAP, CERM, 10uF, 25V, +/-10%, X5R, 1210	1210	GRM32DR61E106KA12L	MuRata		
C8	1	47pF	CAP, CERM, 47pF, 25V, +/-5%, COG/NP0, 0402	0402	GRM1555C1E470JA01D	MuRata		
C9, C17	2	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603	06035C104KAT2A	AVX		
C10, C11	2	22uF	CAP, CERM, 22uF, 16V, +/-20%, X5R, 1206	1206	GRM31CR61C226ME15L	MuRata		
C12	1	2200pF	CAP, CERM, 2200pF, 50V, +/-10%, X7R, 0402	0402	C1005X7R1H222K	TDK		
C13, C16	2	100uF	CAP, CERM, 100uF, 6.3V, +/-20%, X5R, 1210	1210	GRM32ER60J107ME20L	MuRata		
C14	1	22uF	CAP, AL, 22uF, 35V, +/-20%, 1 ohm, SMD	SMT Radial D	EEE-FC1V220P	Panasonic		
C15	1	1uF	CAP, CERM, 1uF, 25V, +/-10%, X7R, 1206	1206	C1206C105K3RACTU	Kemet		
C18	1	100pF	CAP, CERM, 100pF, 100V, +/-5%, COG/NP0, 0603	0603	C1608COG2A101J	TDK		
C19	1	2200uF	CAP ALUM 2200UF 25V 20% RADIAL	12.5x20	25PX2200MEFC12.5X20	Rubycon		
C20	1	1uF	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	0603	GRM188R71C105KA12D	MuRata		
C21	1	10pF	CAP, CERM, 10pF, 50V, +/-5%, COG/NP0, 0402	0402	GRM1555C1H100JA01D	MuRata		
C23	1	DNP	CAP, Film, 0.047uF, 305V, +/-10%, TH	CAP, 18,10.5x5mm, TH	B32932A3473	EPCOS Inc		
C24	1	4700pF	CAP, CERM, 4700pF, 500V, +/-10%, COG/NP0, 2220	2220	VJ2220A472KBEAT4X	Vishay-Vitramon		
C25	1	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0805	0805	08053C104KAT2A	AVX		
D1	1		DIODE SCHOTTKY 150V 3A SMB	SMB	SBR3150SB-13	Diodes Inc.		
D2	1	160V	Diode, TVS, Uni, 160V, 600W, SMB	SMB	SMBJ160A	Diodes Inc.		
D3	1	0.79V	Diode, Schottky, 80V, 2A, SMB	SMB	B280-13-F	Diodes Inc.		
D4	1	1.15V	Diode, Switching-Bridge, 600V, 0.5A, MiniDIP	MiniDIP	RH06-T	Diodes Inc.		
D5	1	1.7V	Diode, Ultrafast, 1000V, 1A, SMA	SMA	US1M-13-F	Diodes Inc.		
D6	1	0.5V	DIODE SCHOTTKY 30V 1A DO214AC	SMA	SS13-E3/61T	Vishay-Semiconductor		
D7, D9	2	0.55V	Diode, Schottky, 45V, 0.2A, 0603 Diode	0603 Diode	CD0603-B0240	Bourns		
D8	1		DIODE SWITCH 200V 200MA SOD323	SOD-323	BAS20HT1G			
D10	1	0.35V	Diode, Schottky, 30V, 0.2A, SOD-323	SOD-323	BAT54HT1G	ON Semiconductor		
F1	1		Fuse, 0.5A, 250V, TH	8.35x7.7x4mm	RST 500	Bel Fuse		
J1	1		Header, TH, 100mil, 2x1, Gold plated, 230 mil above insulator	TSW-102-07-G-S	TSW-102-07-G-S	Samtec, Inc.		
L1	1	2.6uH	Inductor, Shielded Drum Core, Ferrite, 2.6uH, 2.7A, 0.022 ohm, SMD	WE-TPC-LH	744053002	Würth Elektronik eiSos		
L2	1	21 ohm	6A Ferrite Bead, 21 ohm @ 100MHz, SMD	0805	FBMJ2125HM210NT	Taiyo Yuden		
L3, L4	2	DNP	Inductor, Drum Core, Ferrite, 2.2mH, 0.095A, 6.2 ohm, TH	Inductor, 7.87x9.271mm	RL-5480-2-2200	Renco Electronics		
Line, TP1, TP2, TP5, TP7	5	Red	Test Point, TH, Miniature, Red	Keystone5000	5000	Keystone		
Neutral, TP3, TP4, TP6, TP8	5	Black	Test Point, TH, Miniature, Black	Keystone5001	5001	Keystone		
Q1	1		MOSFET N-CH 800V 1.8A TO252	DPAK	FQD2N80			None
Q2	1	20V	Transistor, PNP, 20V, 1.5A, SOT-23	SOT-23	FM1T718TA	Diodes Inc.		
R1	1	200	RES, 200 ohm, 5%, 0.125W, 0805	0805	CRCW0805200RJNEA	Vishay-Dale		
R2	1	49.9	RES, 49.9 ohm, 1%, 0.25W, 1206	1206	CRCW120649R9FKEA	Vishay-Dale		
R3	1	20.5k	RES, 20.5k ohm, 1%, 0.1W, 0603	0603	RC0603FR-0720K5L	Yageo America		
R4, R38	2	10.0k	RES, 10.0k ohm, 1%, 0.063W, 0402	0402	CRCW040210K0FKED	Vishay-Dale		
R5	1	49.9	RES, 49.9 ohm, 1%, 0.063W, 0402	0402	CRCW040249R9FKED	Vishay-Dale		
R6	1	90.9k	RES, 90.9k ohm, 1%, 0.063W, 0402	0402	CRCW040290K9FKED	Vishay-Dale		
R7	1	0	RES, 0 ohm, 5%, 0.25W, 1206	1206	CRCW1206000Z0EA	Vishay-Dale		
R8	1	140k	RES, 140k ohm, 1%, 0.063W, 0402	0402	CRCW0402140KFKED	Vishay-Dale		
R9	1	806	RES, 806 ohm, 1%, 0.063W, 0402	0402	CRCW0402806RFKED	Vishay-Dale		
R10	1	2.37k	RES, 2.37k ohm, 1%, 0.063W, 0402	0402	CRCW04022K37FKED	Vishay-Dale		
R11	1	12.7k	RES, 12.7k ohm, 1%, 0.063W, 0402	0402	CRCW040212K7FKED	Vishay-Dale		
R12	1	22.1k	RES, 22.1k ohm, 1%, 0.063W, 0402	0402	CRCW04022K1FKED	Vishay-Dale		
R13	1	DNP	RES, 0 ohm, 5%, 0.063W, 0402	0402	CRCW0402000Z0ED	Vishay-Dale		
R14	1	DNP	RES, 0 ohm, 5%, 0.125W, 0805	0805	CRCW0805000Z0EA	Vishay-Dale		
R15	1	0	RES, 0 ohm, 5%, 0.063W, 0402	0402	CRCW0402000Z0ED	Vishay-Dale		
R16, R17	2	2.2	RES, 2.2 ohm, 5%, 0.125W, 0805	0805	CRCW08052R20JNEA	Vishay-Dale		
R18	1	33.2k	RES, 33.2k ohm, 1%, 0.063W, 0402	0402	CRCW040233K2FKED	Vishay-Dale		
R19	1	10k	RES, 10k ohm, 5%, 0.063W, 0402	0402	CRCW040210K0JNED	Vishay-Dale		
R20	1	200k	RES, 200k ohm, 1%, 0.063W, 0402	0402	CRCW0402200KFKED	Vishay-Dale		
R21	1	470	RES, 470 ohm, 5%, 0.063W, 0402	0402	CRCW0402470RJNED	Vishay-Dale		
R22	1	1.40k	RES, 1.40k ohm, 1%, 0.063W, 0402	0402	CRCW04021K40FKED	Vishay-Dale		
R23, R25	2	DNP	RES, 510k ohm, 5%, 0.125W, 0805	0805	CRCW0805510KJNEA	Vishay-Dale		
R24, R26, R27, R28	4	0	RES, 0 ohm, 5%, 0.125W, 0805	0805	CRCW0805000Z0EA	Vishay-Dale		
R29	1	73.2k	RES, 73.2k ohm, 1%, 0.063W, 0402	0402	CRCW040273K2FKED	Vishay-Dale		
R30	1	14.3k	RES, 14.3k ohm, 1%, 0.063W, 0402	0402	CRCW040214K3FKED	Vishay-Dale		
R31	1	28.0k	RES, 28.0k ohm, 1%, 0.063W, 0402	0402	CRCW040228K0FKED	Vishay-Dale		
R32	1	48.7k	RES, 48.7k ohm, 1%, 0.063W, 0402	0402	CRCW040248K7FKED	Vishay-Dale		
R33	1	309	RES, 309 ohm, 1%, 0.063W, 0402	0402	CRCW0402309RFKED	Vishay-Dale		
R34, R40, R42	3	1.00k	RES, 1.00k ohm, 1%, 0.063W, 0402	0402	CRCW04021K00FKED	Vishay-Dale		
R35	1	10.0k	RES, 10.0k ohm, 1%, 0.125W, 0805	0805	CRCW080510K0FKEA	Vishay-Dale		
R36, R41	2	100	RES, 100 ohm, 1%, 0.063W, 0402	0402	CRCW0402100RFKED	Vishay-Dale		
R37	1	15.0k	RES, 15.0k ohm, 1%, 0.063W, 0402	0402	CRCW040215K0FKED	Vishay-Dale		
R39	1	8.45k	RES, 8.45k ohm, 1%, 0.063W, 0402	0402	CRCW04028K45FKED	Vishay-Dale		
R43	1	9.09k	RES, 9.09k ohm, 1%, 0.063W, 0402	0402	CRCW04029K09FKED	Vishay-Dale		
R44	1	49.9	RES, 49.9 ohm, 1%, 0.125W, 0805	0805	CRCW080549R9FKEA	Vishay-Dale		
T1	1	850uH	Transformer, 850uH, TH	XFMR, 730x725x730mil, TH	RLTI-1089	Renco Electronics		
TP9	1	Yellow	Test Point, Miniature, Yellow, TH	Keystone5004	5004	Keystone		
U1	1		Adjustable Regulator with 3.7 to 38 V Input and 1.2 to 32 V Output, -40 to 125 degC, 8-Pin TSSOP (PW), Green (RoHS & no Sb/Br)	PW0008A	LM317LIPWR	Texas Instruments	Equivalent	None
U2	1		4.5V TO 28V INPUT, 3A OUTPUT, SYNCHRONOUS STEP DOWN SWIFT CONVERTER, DDA0008E	DDA0008E	TPS5435DDA	Texas Instruments		None

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U3	1		Constant-Voltage, Constant-Current Controller With Primary-Side Regulation, D0007A	D0007A	UCC28710D	Texas Instruments		None
U4	1		Series Low Dropout Regulators, 8-pin Narrow SOIC	M08A	LM2931CM	National Semiconductor		
U5	1		Low Power Low Offset Voltage Dual Comparator, 8-pin Narrow SOIC	M08A	LM2903MX	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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