

**85VAC to 528VAC Flyback with BJT switch**

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC81	1		Printed Circuit Board		PMP10397	Any	-	-
C1, C5	2	15uF	CAP ALUM 15UF 400V 20% RADIAL	RCAP, 10x25mm	UVC2G150MPD	Nichicon		
C2	1	470uF	CAP ALUM 470UF 10V 20% RADIAL	RCAP 8x11.5mm	10YXF470MEFC8X11.5	Rubycon		
C3	1	4.7uF	CAP, CERM, 4.7 µF, 10 V, +/- 10%, X5R, 0603	0603	CGB3B1X5R1A475K055AC	TDK		
C4	1	22uF	CAP, CERM, 22 µF, 10 V, +/- 20%, X5R, 0603	0603	CL10A226MP8NJUNE	Samsung		
C6	1	2200pF	CAP, CERM, 2200 pF, 250 V, +/- 20%, E, Disc 10x8mm	Disc 10x8mm	DE1E3KX222MA5BA01	MuRata		
C7	1	100uF	CAP ALUM 100UF 25V 20% RADIAL	RCAP 8x11.5mm	UMA1E101MDD1TP	Nichicon		
C8	1	2.2uF	CAP, CERM, 2.2 µF, 25 V, +/- 10%, X5R, 1206	1206	GRM316R61E225KA12D	MuRata		
C9	1	4.7uF	CAP, CERM, 4.7 µF, 25 V, +/- 10%, X5R, 0805	0805	C2012X5R1E475K125A B	TDK		
C10	1	4.7uF	CAP, CERM, 4.7 µF, 50 V, +/- 10%, X5R, 1206	1206	GRM319R61H475KA12	MuRata		
D1	1	100V	Diode, Schottky, 100V, 1A, SMA	SMA	SS1H10-E3/61T	Vishay-Semiconductor		
D2	1	200V	DIODE ZENER 200V 3W DO214AC	SMA	3SMAJ5956B	Micro Commercial Co		
D3	1	1000V	Diode, Switching-Bridge, 1000V, 1A, DF-S	DF-S	DF10SA	Vishay-Semiconductor		
D4	1	1.7V	Diode, Ultrafast, 1000V, 1A, SMA	SMA	US1M-13-F	Diodes Inc.		
D5	1	200V	DIODE SCHOTTKY 200V 1A SMA	SMA	SS1200-LTP	Micro Commercial Componen		
D6	1		DIODE SWITCH 200V 200MA SOD323	SOD-323	BAS20HT1G			
F1	1		Fuse, 0.25 A, 250 V, TH	TR5 fuse 8.5mm DIA	37202500001	Littelfuse		
J1	1		HEADER, .312 VERT 3POS	19.7x10.7 x8.5 mm	1-1318301-3	TE Connectivity		
L1, L2	2	100uH	Inductor, Unshielded Drum Core, Ferrite, 100uH, 0.8A, 0.457 ohm, TH	D6 x 8.5mm	7447462101	Würth Elektronik eiSos		
Q1	1	2V	TRANSISTOR NPN 800V 3A I2PAK	TO-126	FJ15603DTU	Fairchild		
R1, R3, R4, R6	4	4.7Meg	RES, 4.7Meg ohm, 5%, 0.25W, 1206	1206	CRCW12064M70JNEA	Vishay-Dale		
R2	1	511	RES, 511, 1%, 0.1 W, 0603	0603	CRCW0603511RFKEA	Vishay-Dale		
R5	1	1.00k	RES, 1.00k ohm, 1%, 0.125W, 0805	0805	CRCW08051K00FKEA	Vishay-Dale		
R7	1	2.0k	RES, 2.0k ohm, 5%, 0.125W, 0805	0805	CRCW08052K00JNEA	Vishay-Dale		
R8, R10	2	1.5Meg	RES, 1.5 M, 5%, 0.25 W, 1206	1206	CRCW12061M50JNEA	Vishay-Dale		
R9	1	0	RES, 0, 5%, 0.25 W, 1206	1206	RC1206JR-070RL	Yageo America		
R11	1	73.2k	RES, 73.2 k, 1%, 0.1 W, 0603	0603	CRCW060373K2FKEA	Vishay-Dale		
R13	1	324	RES, 324, 1%, 0.25 W, 1206	1206	CRCW1206324RFKEA	Vishay-Dale		
R14	1	15.8k	RES, 15.8 k, 1%, 0.1 W, 0603	0603	CRCW060315K8FKEA	Vishay-Dale		
R15	1	3.0	RES, 3.0 ohm, 5%, 0.125W, 0805	0805	CRCW08053R00JNEA	Vishay-Dale		
T1	1	2.86mH	Transformer, Flyback, 2.86mH, TH		DCT19EPC-xxxH014	TDK		
TP1, TP3	2	Red	Test Point, TH, Miniature, Red	Keystone5000	5000	Keystone		
TP2, TP4	2	Black	Test Point, TH, Miniature, Black	Keystone5001	5001	Keystone		
U1	1		Constant-Voltage, Constant-Current Controller With Primary-Side Regulation, BJT Drive, DBV0006A	DBV0006A	UCC28722DBV	Texas Instruments		None
R12	0	1.5Meg	RES, 1.5 M, 5%, 0.25 W, 1206	1206	CRCW12061M50JNEA	Vishay-Dale		

Notes:

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

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