

HVBFly - 10W B+ Flyback Converter Bill of Materials

Qty	Ref Des	Description	Mfg	Mfg PN	Vendor	Vendor PN	Cost Ea	Cost Ext	Notes
3	C1, C2, C7	Cap polymer elect 120uF 35V 10mm dia 5mm LS	Panasonic	35SEPF120	Digi-Key	P16342-ND	\$ 1.87	\$ 5.61	Value not critical but use polymer elect cap for lowest ESR
3	C10, C11, C12	Cap film 0.1uF 400V 15mm LS	Epcos	B32522C6104K189	Digi-Key	495-4960-1-ND	\$ 1.02	\$ 3.06	Other mfgs OK
1	C3	Cap ceramic 1nF 16V+ X7R/COG 0.1 LS	TDK	FK18X7R2A102K	Digi-Key	445-4290-ND	\$ 0.34	\$ 0.34	Substitutes OK
2	C4, C6	Cap film 1uF 50V+ 5mm LS	Epcos	B32529C105K189	Digi-Key	495-2470-1-ND	\$ 0.64	\$ 1.28	Substitutes OK
1	C5	Cap ceramic 220nF 16V+ X7R 0.1 LS	TDK	FK18X7R1C224K	Digi-Key	445-5305-ND	\$ 0.29	\$ 0.29	Substitutes OK
3	C8, C9, C13	Cap elect 10uF 400V low-Z 13mm dia 5mm LS	Nichicon	UPW2G100MHD	Digi-Key	493-2059-ND	\$ 0.80	\$ 2.40	Use low ESR / low-Z cap
2	D1, D2	Diode TVS 24V 600W DO-201	On Semi	P6KE24AG	Digi-Key	P6KE24AGOS-ND	\$ 0.46	\$ 0.92	Any mfg OK
1	D3	Diode Schottky 100V 1A DO-204	On Semi	MBR1100G	Digi-Key	MBR1100GOS-ND	\$ 0.52	\$ 0.52	SB1100 OK too
1	D4	Diode SiC Schottky 1A+ 600V TO220-2	CREE	C3D02060F	Digi-Key	C3D02060F-ND	\$ 0.96	\$ 0.96	Other SiC Schottky OK
1	F1	Polyfuse 2.5A	Tyco Raychem	RXEF250-2	Digi-Key	RXEF250-2HFCT-ND	\$ 0.65	\$ 0.65	Other similar is OK
1	HS1	Heatsink PCB for TO220	Aavid	7136DG	Digi-Key	HS409-ND	\$ 0.87	\$ 0.87	
1	L1	Inductor 33uH 2A+ 14mm dia	Murata	18R333C	Digi-Key	811-1315-ND	\$ 1.42	\$ 1.42	Others OK if they fit
1	L2	Inductor 1mH 200mA+ 14mm dia	Murata	18R105C	Digi-Key	811-1319-ND	\$ 1.42	\$ 1.42	Others OK if they fit
1	R1	Res 3.01k 1/4W 1%	generic		Digi-Key	3.01KXBK-ND	\$ 0.10	\$ 0.10	
	R2, R4	Res 52.3k 1/4W 1%	generic		Digi-Key	52.3KXBK-ND			Use for VOUT = 90-125V
	R2, R4	Res 73.2k 1/4W 1%	generic		Digi-Key	73.2KXBK-ND			Use for VOUT = 125-175V
2	R2, R4	Res 100k 1/4W 1%	generic		Digi-Key	100KXBK-ND	\$ 0.10	\$ 0.20	Use for VOUT = 175-225V
	R2, R4	Res 133k 1/4W 1%	generic		Digi-Key	133KXBK-ND			Use for VOUT = 225-325V
1	R3	Res 10k 1/4W 1%	generic		Digi-Key	10.0KXBK-ND	\$ 0.10	\$ 0.10	
1	R5	Res 1k 1/4W 1%	generic		Digi-Key	1.00KXBK-ND	\$ 0.10	\$ 0.10	
1	R6	Trimpot 500 ohm 1/4" top adj	TT/BI	64WR500LF	Digi-Key	987-1608-5-ND	\$ 1.74	\$ 1.74	Bourns 3266W or similar OK too
1	T1	Transformer flyback	Coilcraft	Y-8848A	Coilcraft	B0570-BL	\$ 5.31	\$ 5.31	Available direct from www.coilcraft.com
1	U1	IC sw reg LT1171 TO220-5	Linear Tech	LT1171CT#PBF	Digi-Key	LT1171CT#PBF-ND	\$ 8.92	\$ 8.92	
1		PC Board	pmillett	HVBFly	eBay		\$ 18.00	\$ 18.00	stores.ebay.com/pmillet
Total								\$ 54.21	