

Bill Of Materials for HV PSFB Demonstration

Design Title HV PSFB Demonstration
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Revision 2
Design Created Monday, July 20, 2015
Design Last Modified Tuesday, June 28, 2016
Total Parts In Design 209

55 Capacitors

Quantity	References	Value	Manufacturer	Mfg PN	Stock Code
4	C1,C2,C39,C40	10uF	Samsung	CL21B106KOQNNNE	1276-2872-1-ND
15	C3,C6,C7,C8,C9,C10,C11,C12,C13,C14,C15,C16,C18,C33,C43	0.1uF	TDK	C1608X7R1E104K080AA	445-1316-2-ND
7	C4,C5,C21,C22,C23,C24,C25	1uF	TDK	C2012X7R1H105K085AC	445-14539-1-ND
1	C17	0.1uF	TDK	C3216X7R2A104K160AA	445-1377-1-ND
4	C19,C44,C45,C59	6800pF	TDK	C1608X7R2A682K080AA	445-4424-1-ND
1	C20	20uF	Vishay	MKP1848S62010JY5F	BC2777-ND
8	C26,C27,C29,C30,C31,C32,C54,C55	1uF	TDK	C3225X7R2A105K200AM	445-7087-1-ND
1	C28	0.027uF	Kemet	C1206X273KARACTU	399-5835-1-ND
2	C34,C35	330pF	Murata	GRM188R72A331KA01D	490-1464-1-ND
1	C36	3.3nF	TDK	C1608X7R2A332K080AA	445-4422-1-ND
3	C37,C41,C42	1uF	TDK	C1608X7R1E105K080AB	445-5956-1-ND
1	C38	100uF	Cornell Dubilier	AVE107M25X16T-F	338-1805-1-ND
1	C47	1000pF	Vishay	VY1102M35Y5UQ63V0	BC2374-ND
6	C48,C49,C50,C51,C52,C53	470uF	Nippon Chemi-Con	EKZE630ELL471MK30S	565-1727-ND

Sub-totals:

76 Resistors

Quantity	References	Value	Manufacturer	Mfg PN	Stock Code
1	R1	470R	Stackpole Electronics	RMCF0603FT470R	RMCF0603FT470RCT-ND
2	R2,R3	27R	Stackpole Electronics	RMCF0603FT27R0	RMCF0603FT27R0CT-ND
2	R4,R6	2.2k	Stackpole Electronics	RMCF0603FT2K20	RMCF0603FT2K20TR-ND
1	R5	1MEG	Stackpole Electronics	RMCF0603FT1M00	RMCF0603FT1M00CT-ND
9	R7,R13,R15,R18,R20,R23,R25,R32,R33	10k	Stackpole Electronics	RMCF0603FT10K0	RMCF0603FT10K0CT-ND

9	R8,R11,R38, R39,R42,R43, R44,R46,R78	1k	Stackpole Electronics	RMCF0603FT1K00	RMCF0603FT1K00CT- ND
1	R9	37.4k	Stackpole Electronics	RNCP1206FTD37K4	RNCP1206FTD37K4CT- ND
1	R10	2k	Stackpole Electronics	RMCF0603FT2K00	RMCF0603FT2K00CT- ND
8	R12,R14,R16, R17,R19,R21, R22,R24	3R01	Stackpole Electronics	RMCF1206FT3R01	RMCF1206FT3R01CT- ND
2	R26,R27	499R	Stackpole Electronics	RMCF1206FT499R	RMCF1206FT499RCT- ND
1	R28	402k	Vishay	CRCW1210402KFKEA	541-402KAACT-ND
4	R29,R30,R35, R36	22k	TE Connectivity	4-1879234-0	A106034CT-ND
1	R31	0R0005	Isotek	BVS-M-R0005-1.0	BVS-M-R0005-1.0
1	R34	0R1	Stackpole Electronics	RMCF0805ZT0R00	RMCF0805ZT0R00CT- ND
1	R37	66.5k	Stackpole Electronics	RMCF0603FT66K5	RMCF0603FT66K5CT- ND
2	R40,R50	4R7	Stackpole Electronics	RNCP0805FTD4R70	RNCP0805FTD4R70CT- ND
3	R41,R66,R67	100R	Stackpole Electronics	RNCP0603FTD100R	RNCP0603FTD100RCT- ND
1	R45	357	Stackpole Electronics	RMCF0603FT357R	RMCF0603FT357RCT- ND
20	R47,R48,R49, R51,R52,R53, R54,R55,R56, R57,R60,R61, R70,R71,R72, R73,R74,R75, R76,R77	200k	Vishay	MMA02040C2003FB300	MMA-200KACT-ND
2	R58,R59	6.65k	Stackpole Electronics	RMCF0603FT6K65	RMCF0603FT6K65CT- ND
4	R62,R63,R64, R65	20R	Stackpole Electronics	RNCP1206FTD20R0	RNCP1206FTD20R0CT- ND

Sub-totals:

3 Inductors

Quantity	References	Value	Manufacturer	Mfg PN	Stock Code
1	L1	22uH	Murata	LQM21FN220N00L	490-4030-1-ND
1	L2	54uH	Triad Magnetics	USC-FC1	USC-FC1
1	L3	18uH	Triad Magnetics	USC-FC2	USC-FC2

Sub-totals:

4 Transformers

Quantity	References	Value	Manufacturer	Mfg PN	Stock Code
1	TR1	TRAN_1P2S_10P5_10P5	Triad Magnetics	USC-FP1	USC-FP1
2	TR2,TR3	TRAN_1P2S_95VUS	Pulse Electronics	P0584NL	553-1646-5-ND
1	TR4	TRAN-2P2S- VOLTSENSE-100TURNS	Pulse Electronics	PE-63587NL	553-1548-ND

Sub-totals:

12 Integrated Circuits

Quantity	References	Value	Manufacturer	Mfg PN	Stock Code
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1	U1	FT2232D	Future Technology Devices International	FT2232D	768-1010-1-ND
1	U2	93LC46B	Microchip	93LC46BT	93LC46BT-I/OTCT-ND
1	U3	SN74LVC2G74	Texas Instruments	SN74LVC2G74	296-13273-1-ND
1	U4	TPS73033	Texas Instruments	TPS73033DBVR	296-17580-1-ND
1	U5	ISO7240C	Texas Instruments	ISO7240CDW	296-22628-5-ND
1	U6	ISO7242C	Texas Instruments	ISO7242CDW	296-22966-5-ND
3	U7,U8,U9	UCC27324D_DGN	Texas Instruments	UCC27324DGN	296-12532-5-ND
2	U10,U11	OPA365AIDBVR	Texas Instruments	OPA365AIDBVR	296-20645-1-ND
1	U12	TLV1117LV33DCY_	Texas Instruments	TLV1117LV33DCY_	296-28778-1-ND

Sub-totals:

6 Transistors

Quantity	References	Value	Manufacturer	Mfg PN	Stock Code
4	Q1,Q2,Q3,Q4	UJC1210K	United Silicon Carbide	UJC1210K	UJC_
2	Q5,Q6	NMOSFET_200V_8MOHM_TO-247	International Rectifier	IRFP4668PBF	IRFP4668PBF-ND

Sub-totals:

25 Diodes

Quantity	References	Value	Manufacturer	Mfg PN	Stock Code
2	D1,D2	UJ2D1205T	USCi	UJ2D1205T	497-4754-1-ND
12	D3,D5,D7,D9,D13,D14,D15,D16,D17,D18,D19,D20	DIODE_100V_300MA_SOD123	Diodes Inc.	1N4148W-7-F	1N4148W-FDICT-ND
4	D4,D6,D8,D10	ZENER_12V_500MA_SOD123	Diodes Inc.	MMSZ5242B-7-F	MMSZ5242B-FDICT-ND
2	D11,D12	DIODE_300V_3A_DO214AB	Vishay	ES3F-E3/57T	ES3F-E3/57TGICT-ND
2	DA1,DA5	DA4_SOT363	Diodes Inc.	BAW567DW-7-F	BAW567DW-FDICT-ND
3	DA2,DA3,DA4	DA2_CA_30V_SOT23	Diodes Inc.	BAT54A-7-F	BAT54A-FDICT-ND

Sub-totals:

1 Modules

Quantity	References	Value	Manufacturer	Mfg PN	Stock Code
1	M1	DC-DC_18VIN_ADJ_TO_5P5V_OUT_2P25A	Texas Instruments	PTH08080WAH	296-20432-ND

Sub-totals:

5 Connectors

Quantity	References	Value	Manufacturer	Mfg PN	Stock Code
1	J1	CONN-SIL2	3M	929647-09-36-I	929647-09-36-ND
1	J2	DIMM100_C2000	Texas Instruments	TMDSDIM100CON5PK	TMDSDIM100CON5PK
2	J6,J7	CONN-SIL1		quarter_inch_bolt_hole	
1	JP1	USB_MINI_B	Mill-Max	UX60A-MB-5ST	H2961CT-ND

Sub-totals:

22 Miscellaneous

Quantity	References	Value	Manufacturer	Mfg PN	Stock Code
1	FU1	3A	Schurter	0090.1003	486-2712-ND
1	HS1	Q3, Q4	Ohmite	C247-050-2AE	C247-050-2AE-ND
1	HS2	Q1, Q2	Ohmite	C247-050-2AE	C247-050-2AE-ND

1	HS3	Q5, Q6	Ohmite	<u>C247-050-2AE</u>	<u>C247-050-2AE-ND</u>
2	LED1,LED2	LED_GRN_0805	Stanley Electronics	<u>PG1112H-TR</u>	<u>404-1021-1-ND</u>
2	PAD1,PAD2	Q3, Q4	Bergquist	<u>SPT400-12-13.5-25</u>	<u>BER157-ND</u>
2	PAD3,PAD4	Q1, Q2	Bergquist	<u>SPT400-12-13.5-25</u>	<u>BER157-ND</u>
2	PAD5,PAD6	Q5, Q6	Bergquist	<u>SPT400-12-13.5-25</u>	<u>BER157-ND</u>
1	TB1	TBLOCK_1KV_2POS	Phoenix Contact	<u>1792229</u>	<u>277-9886-ND</u>
1	TB2	TBLOCK_2POS_300V_10A_SP RING	Phoenix Contact	<u>1792863</u>	<u>277-2518-ND</u>
7	TP1,TP2,TP3, TP4,TP5,TP6, TP7	TEST_PIN	Vector Electronics	<u>K24A/C</u>	<u>574-K24A/C</u>
1	X1	XTAL_6MHZ_3SMD	Murata	<u>CSTCR6M00G53Z-R0</u>	<u>490-1218-1-ND</u>

Sub-totals:

Totals:

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