



Title		
Size	Number	Revision
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Date:	8/26/2013	Sheet of
File:	C:\Users\...TopSwitchJX.SchDoc	Drawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity	Value
XTAL	Crystal	Y1	crystal	XTAL	1	
350-500 Volt	Varistor	VR100	Varistor1	Varistor	1	
6.8R - 10R 1/2W	Resistor	R204, R205	Axial 53	Varistor	2	
ULN2003A	Darlington Array	U102	SCP16	ULN2003A	1	
Transorb	Transient Voltage Suppression (TVS) Diode	D6	TVS	Transorb	1	
Transformer	Transformer	T1	B66358 - Horizontal	Transformer	1	
LineFilter	Transformer (Coupled Inductor Mode)	T2	LineFilter type290	Trans Cpl	1	
TopSwitchJK		U4	eSP-7C (E Package) TopSwitch-JK	TOPSwitchJK	1	
Res3	Resistor	R1, R6, R14, R22	RES3216M	Res3	4	10K
Res3	Resistor	R10, R17, R33	RES3216M	Res3	3	6.8
Res3	Resistor	R2	RES3216M	Res3	1	330
Res3	Resistor	R29	RES3216M	Res3	1	464
Res3	Resistor	R3, R4, R11, R12, R19, R20, R66	RES3216M	Res3	7	100K
Res3	Resistor	R32	RES3216M	Res3	1	1000
Res3	Resistor	R35	AXIAL-0.7	Res3	1	0.01
Res3	Resistor	R36, R37	RES3216M	Res3	2	20
Res3	Resistor	R47, R47_V, R47_W, R50, U, R50_V, R50_W	AXIAL-0.3	Res3	6	2.2
Res3	Resistor	R48, R48_V, R48_W	AXIAL-0.3	Res3	3	22
Res3	Resistor	R5, R13, R21	AXIAL-0.3	Res3	3	22K
Res3	Resistor	R54	AXIAL-0.3	Res3	1	10K
Res3	Resistor	R55	AXIAL-0.3	Res3	1	300
Res3	Resistor	R7, R15, R23	RES3216M	Res3	3	2K
Res3	Resistor	R74, R74_V, R74_W	RES3216M	Res3	3	22
Res3	Resistor	R76	AXIAL-0.3	Res3	1	3.3K
Res3	Resistor	R78, R86	RES3216M	Res3	2	3.3K
Res3	Resistor	R8, R16, R24, R26, R27, R30, R31	RES3216M	Res3	7	1M
Res3	Resistor	R87, R87_V, R87_W, R88, U, R88_V, R88_W	AXIAL-0.3	Res3	6	2.2K
0	Resistor	R9	Axial .3	Res2	1	1K
TK	Resistor	R101	0605_SMD	Res2	1	1K
JK	Resistor	R34	0805_SMD	Res2	1	2K
Res2	Resistor	R18, R25	AXIAL-0.4	Res2	2	38K
Res2	Resistor	R28	AXIAL-0.4	Res2	1	5.1
LTV817a	Photo Transistor Optocoupler	U2	DIP-4	Optoisolator1	1	
LM2903D	Linear Operational Comparator	U1, U10	DO08_N	LM2903D	2	
LED1	High Power LED	D2, D12	LED 2	LED1	2	
Jumper	Jumper Wire	S10, S2, S3, S4, S5, S6, S7, S14, S15	Jumper9mm	Jumper	9	
Jumper	Jumper Wire	S16, S17	Jumper9mmNT	Jumper	2	
Jumper	Jumper Wire	S8, S9, S11, S11_1, S12, S13	Jumper18mm_NT	Jumper	6	
IRFZ44N	HEXFET Power MOSFET	Q1_U, Q1_V, Q1_W, Q2_U, Q2_V, Q2_W	TO-220AB	IRFZ44N	6	
IR2101S	High and Low Side Driver	U5, U, U5_V, U5_W	SO4_N	IR2101S	3	
Inductor	Inductor	L1, L2	Inductor	Inductor	2	3.3uH
HT49FM03B		U3	SCP127P1030Azerb28N	HT49FM03	1	
Header 10	DC Box with latch	P100	BoxHeader01v2x5	Header 10	1	
Power	Header, 6-Pin	J203	ST_PowerConn6	Header 6	1	
Header 5X2	Header, 5-Pin, Double Row	P3, P3_D, P_ICP	HDR2X5	Header 5X2	3	
Header 5	Header, 5-Pin	P1	ST_PowerConn5	Header 5	1	
Header 2	Header, 2-Pin	P2	HDR1X2	Header 2	1	
Fuse 2	Fuse	F1	Fuse1	Fuse 2	1	
Diode 1N4007	1 AMP 50VRRM Purpose Rectifier	D13, D14, D15, D16	DO-41	Diode 1N4007	4	
FR257	High Conductance Fast Diode	D9	DO-35	Diode 1N914	1	
Diode	Default Diode	D7_U, D7_V, D7_W	DO-41	Diode	3	
022V Zener	Zener Diode	D11	DIODE-0.4	D Zener	1	
ZMM4V7 Zener	Zener Diode	D3	CD4532-1812	D Zener	1	
100uF 16V	Capacitor	C18	CAP4	CAPACTOR	1	
100uF 35V	Capacitor	C13	CAP4	CAPACTOR	1	
10uF 50V	Capacitor	C27	CAP4	CAPACTOR	1	
47 uF 16Vall	Capacitor	C30, C110	CAP2	CAPACTOR	2	
220uF 25V	Capacitor	C15	CAP4	CAPACTOR	1	
57uF 10V	Capacitor	C29	CAP4	CAPACTOR	1	
580uF 35V	Capacitor	C11, C12	CAP4	CAPACTOR	2	
82uF 400V	Capacitor	C22	82UF400V	CAPACTOR	1	
Cap Semi	Capacitor (Semiconductor SMD Mode)	C1, C2, C3, C4, C5, C6	CAPC3216M	Cap Semi	6	47nF
Cap Semi	Capacitor (Semiconductor SMD Mode)	C16, U, C16_V, C16_W	CAPC3225M	Cap Semi	3	470nF
Cap Semi	Capacitor (Semiconductor SMD Mode)	C17_U, C17_V, C17_W	CAPC3216M	Cap Semi	3	330nF
Cap Semi	Capacitor (Semiconductor SMD Mode)	C23, C24	CAPC3216M	Cap Semi	2	22pF
Cap Semi	Capacitor (Semiconductor SMD Mode)	C28	CAPC3225M	Cap Semi	1	1.1uF 16V
Cap Semi	Capacitor (Semiconductor SMD Mode)	C7, C8, C21	CAPC3216M	Cap Semi	3	1uF
Cap Semi	Capacitor (Semiconductor SMD Mode)	C8, C25, C50, C51	CAPC3216M	Cap Semi	4	100nF
100nF	Capacitor	C201, C108, C109	0605_SMD	Cap	4	
Cap	Capacitor	C10, C14	RAD3.3	Cap	2	22pF 1KV
Cap	Capacitor	C19	RAD3.3	Cap	1	2.2nF 250VAC
Cap	Capacitor	C20	RAD3.3	Cap	1	4.7nF 1KV
Cap	Capacitor	C36	330n275ac	Cap	1	330nF 275VAC
BYW29-200		D4	TO220-B	BYW29-200	1	
LM7805	Voltage Regulator	U101	REGULATOR & HEATSINK	78L05	1	
LM7812	Voltage Regulator	U100	REGULATOR & HEATSINK	78L05	1	
UF4002	1 AMP 50VRRM Purpose Rectifier	D5	DO-41	1N4002	1	
1N914	High Conductance Fast Diode	D10	DO-35	1N914	1	