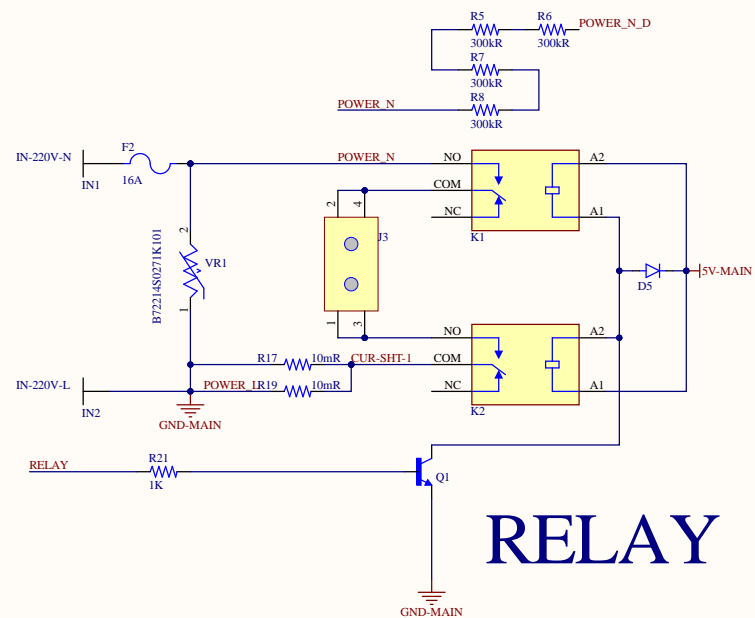
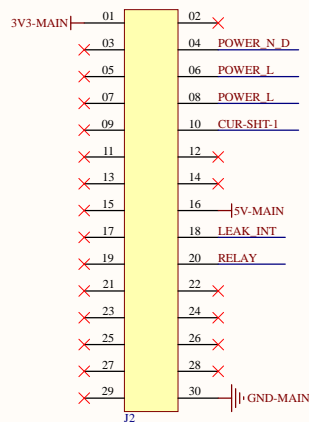


POWER

CONNECTOR



RELAY

Title		
Size	Number	Revision
A3		
Date:	4/01/2025	Sheet of
File:	D:\File\MAINSSMB V1.4_SchDoc	Drawn By:

Comment	Description	Designator	Footprint	LSRef	Quantity
1000pF ±5%,50V Ceramic Capacitor 1210 Radial	Capacitor Ceramic 0.010µF 50V 00G05 from TR	C3	THCAP444W 6.6x4.0x2.5 T08C	CAP-TR 0.0010µF 50V F000P05H102J4.008	1
220µF 16V Aluminum - Polymer Capacitors Radial, Can - 8x2.2mmChm 1000Hs @ 125°C	Cap Aluminum Polymer 220µF 16VDC 875uA, 3.3x5.8mm SMD,0.02 Ohm 104mA 1000H 125C TR	C2, C4	SMD044W 6.3x6.6x6.6PEC	CAP-220µF 16V SMD 160AP22M	2
220µF 10V Aluminum - Polymer Capacitors Radial, Can - 8x2.2mmChm 2000Hs @ 105°C	Cap Aluminum Polymer 220µF 10VDC 875uA, 3.3x5.8mm SMD,0.02 Ohm 270mA 2000H 105C TR	C3	SMD044W 6.3x6.6x6.6PEC	CAP-220µF 10V SMD 105PE22M	1
0.1µF ±5%,50V Ceramic Capacitor X7R 0603 (1608 Metric)	Multilayer Ceramic Capacitor 0.1µF, 50V X7R,0603 1108Metric	C3	SMDCAP0603- VAGED	CAP-0.1µF, 50V, 0603 SMD C0003UR0788B104	1
2.2µF ±40V Aluminum Electrolytic Capacitors Radial, Can 2000Hs @ 85°C	Cap Aluminum/Elec 2.2µF 40V 20% (8 X 11.5mm) Radial 1.5mm 20mA 2000H 85CAutomotive Bulk	C7, C8	THCAP44D-12.5x6.0 PEC	CAP-TR 2.2µF, 40V, 10A-20A85C	2
10000pF ±5%,25V Ceramic Capacitor X7R 0603 (1608 Metric)	Surface Mount Ceramic Multilayer Capacitor 0.010µF 25V X7R25V 0603 Paper TR	C9	SMDCAP0603- VAGED	CAP-0.010µF, 25V, 0603, SMD C0003UR0788B103	1
Bridge Rectifier Single Phase Standard 1kV Surface Mount ABS	Bridge Rectifier 1A, 1000V, Standard Bridge Rectifier	D1	DIODESMD-4TSC	DIODE SMD /ABS04	1
Diode 40 V/5A Surface Mount DO-214AC (SMA)	Diode Schottky S 40V 3A,2-Pin SMA TR	D2	SMDDO-214AC214- CT	DIODE SMD, SCHOTTKY, S044HF	1
Diode 100V 1A Surface Mount SOD- 123FL	Diode Gen Purp 10V/ 1A SOD123FL	D3, D6	SOD-123FL,SMDDS	DIODE SMD, 1N4003FLN4003	2
TA3007C/DC/Fuse Board Mount Cartridge Style (Included) Through Hole Radial, Box	Fuse Subminiature Slow Blow Acting 1A, 300V Radial 8.5x4.4x4 8mm Arrester Pack	F1	FUSEH44W 3.6x6.5x4.0UJ	FUSE 1A, 300V1000000	1
FUSE 16A 8001 8211 1		F2	FUSE-3.6mmx10mm AXIAL	FUSE 16A 8001 8211 1	1
Linear Voltage Regulator ICPositive Fixed 1 Output 1A SOT- 223-3	Linear Voltage Regulator ICOutput 1A SOT-223	IC1	SOT-223-3-DI	LDO 3xV, 1A SMD, A21117B-1.3,3TRG1	1
Converter Off Line Flyback Topology 1524Hz SMD08	ACto DC Switching Converter Off Line Switcher 150W 12Vin SMD5 / IC OFFLINE SMTHV/8SMD	IC3	SMD48P1	LVN634V-TL	1
Optoisolator Transistor Output 5750Vrms 1 Channel 4SCP (2.54mm)	Transistor Output Optoisolator, 1- Element, 3750V/ Isolation	IC4	SCP-4	ISO 1CH ELB5N-G	1
Shunt Voltage Reference IC Adjustable 2.49V/36 V ±1% 100mA SOT- 23-3	VRef Adjustable 2.49V to 36V 100mA Automotive 3-Pin SOT- 23 TR	IC5	SOT-23-3-DS	TL431AC08R MIRROD	1
Linear Voltage Regulator ICPositive Fixed 1 Output 1A TO- 252	Linear Voltage Regulator, Fixed, Positive Output, 7.5V to 25 V, 5V, 1A, 3 Pins, TO-252 (DPAK)	IC7	TC92-3-RS	LDO 5V, 1A SMT1000P42	1
INPUT		IN1, IN2	INPU2-0x2.5	INPU2-0x2.5	2
30 Position Elevated Socket Connector 6, 107 (2.54mm) Through Hole Gold	Connector Receptacle 30 Position 0.107 (2.54mm) Gold Through Hole	J2	HEADER2-54-156- NED	HEADER 150PIN, 2.54 VERT, ED-115-12 G-0, NED	1
Connector Header Through Hole 4 position 0.107 (2.54mm)	Conn Unshrouded Header HDR4 PDS 2.54mm Splice 2P Thru Hole Automotive Bulk	J3	SOCKET SINGLE MEM010H	SOCKET, SINGLE	1
RELAY 5V/4V JQ1P-5V/4V	RELAY GEN PURPOSE SPDT 10A/5V	K1, K2	RELAY JQ1P-10A- H44W-15.6x20.5x10 PBY	RELAY SINGLE 5V DCC, JQ1P-0607-000163-1	2
220µH Shielded Dism Core, Wirewound Inductor 250mA, 3.8x3.0mm Max Nonstandard	Power Inductor SMD, 220µH ±20%, 320mA, Shielded, 33 Ind, 4mm x 4mm x 1 1.8mm	L1, L2	SMDH44W- 1.8x4.0x4.0-ALLC	IND, 220uH, 250mA, ASR 04HFS-221M-T3	2
Resistor (SMT) Transistor NPN 45 V 500mA 100MHz 30 mW Surface Mount 80T-23-3, (TO-236) Pin, Surface Mount	Single Resistor Transistor, NPN, 45 V, 500mA, 225mW/ 80T-23 (TO-236, 3 Pins, Surface Mount	C1	SOT-23-3-ON5M	TRANS NPN, 500mA-V, 80B17-25L7G	1
300kOhms ±1%,0.5W 1/2W Chip Resistor 1206 (3216 Metric) Automotive AEC Q200, Pulse Withstanding Thick Film	Res Thick Film 1206 300K Ohm 1% 0.5W/0.12W ±100ppm/Cbipony Resin Rad SMD Automotive TR	R8	SMDRES-1206-RS	RES 300K 1206, ESR032PFY003	1
100kOhms ±1%,0.1W 1/10W Chip Resistor 0603 (1608 Metric) Automotive AEC Q200, High Voltage Thick Film	Res Thick Film 0603 100 Ohm 1% 0.1W/0.10W ±100ppm/Cbip SMD TR Automotive AEC Q200	R2	SMDRES-0603-RS	RES 100R 0603, SMD, ESR032PFY003	1
100kOhms ±1%,0.25W 1/4W Chip Resistor 0603 (1608 Metric) Automotive AEC Q200, Pulse Withstanding Thick Film	SMD Chip Resistor, 100 kOhm, ±1%, 250mW/ 0603 (1608 Metric), Thick Film, Anti-Surge	R3, R4	SMDRES-0603-SB	RES 10K 0603, SMD, ESR032PFY002	2
300kOhms ±1%,0.1W 1/10W Chip Resistor 0603 (1608 Metric) Automotive AEC Q200, High Voltage Thick Film	Res High Voltage Thick Film 0603 300K Ohm 1% 0.1W/ ±100ppm/Cbipaded Paper TR	R5, R6, R7, R8	SMDRES-0603-RS	RES 300K 0603, SMD ATR032PFY003	4
10mOhms ±1%,3W Chip Resistor 2512 (6432 Metric) Automotive AEC Q200, Current Sense Measure Resistant Metal Film	Res Current Sense Metal Plate 2512 0.01 Ohm 1%, 3W ±10ppm/Cbipaded TR	R17, R19	SMDRES-2512-VD	RES 94UNT, 10mOhm, SMD, WPM2512SR03076A	2
100kOhms ±1%,0.25W 1/4W Chip Resistor 0603 (1608 Metric) Automotive AEC Q200, Pulse Withstanding Thick Film	SMD Chip Resistor, 1 kOhm, ±1%, 250mW/ 0603 (1608 Metric), Thick Film, Anti-Surge	R21	SMDRES-0603-SB	RES 1K 0603, SMD, ESR032PFY001	1
For SPS Transformer 500VAC Isolation Through Hole	OFFLINE TRANSFORMER 50W EE13 7/6	T1	EE13- POWER	EE13 5/6-Power	1
VDR W2214227H101	Vdr MOV 275VAC/250VDC 400A-400V Thru Hole Radial Automotive Bulk	M1	VARISTOR TDK	VDR W2214227H101	1