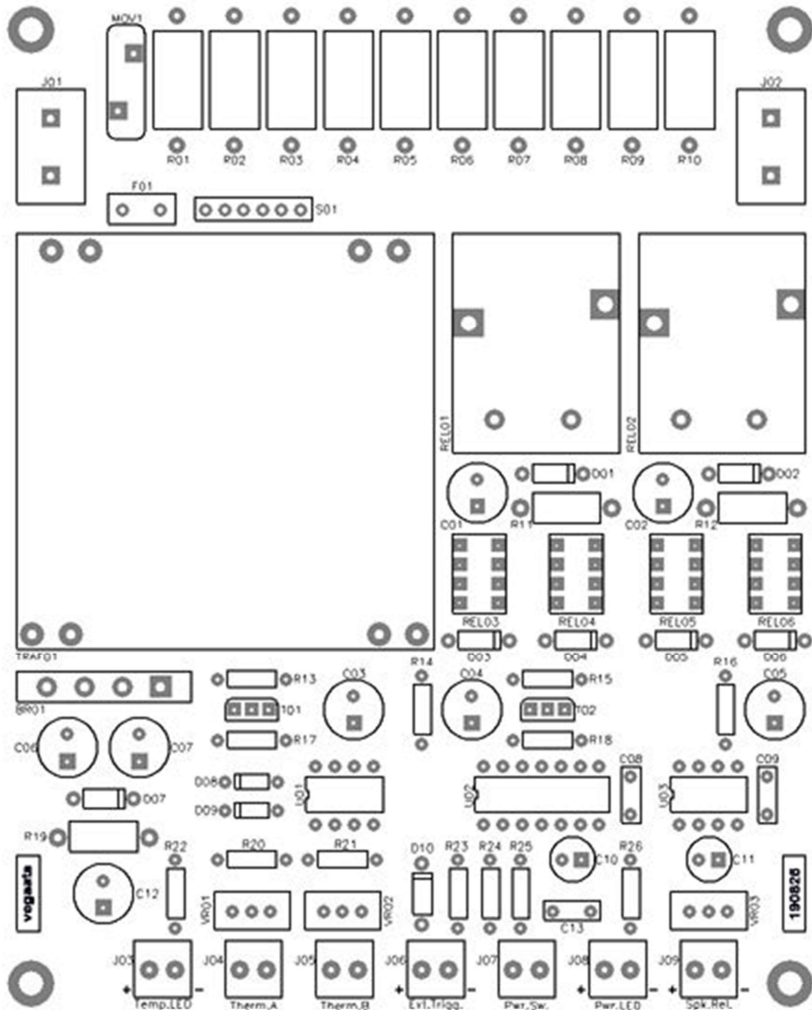


START MODULE

Start,
Soft Start,
External Trigger,
Thermal Protection
and
12 VDC Supply
for the
Speakers Protection Module



20190912



J01 = Terminal block, 17.5A	TE Connectivity	282844-2
J02 = Terminal block, 17.5A	TE Connectivity	282844-2
J03 = Terminal block, 10A	Würth Electronics Inc.	691214110002
J04 = Terminal block, 10A	Würth Electronics Inc.	691214110002
J05 = Terminal block, 10A	Würth Electronics Inc.	691214110002
J06 = Terminal block, 10A	Würth Electronics Inc.	691214110002
J07 = Terminal block, 10A	Würth Electronics Inc.	691214110002
J08 = Terminal block, 10A	Würth Electronics Inc.	691214110002
J09 = Terminal block, 10A	Würth Electronics Inc.	691214110002

R01 = 300, 5W, wirewound	Riedon	UB5C-300RF1
R02 = 300, 5W, wirewound	Riedon	UB5C-300RF1
R03 = 300, 5W, wirewound	Riedon	UB5C-300RF1
R04 = 300, 5W, wirewound	Riedon	UB5C-300RF1
R05 = 300, 5W, wirewound	Riedon	UB5C-300RF1
R06 = 300, 5W, wirewound	Riedon	UB5C-300RF1
R07 = 300, 5W, wirewound	Riedon	UB5C-300RF1
R08 = 300, 5W, wirewound	Riedon	UB5C-300RF1
R09 = 300, 5W, wirewound	Riedon	UB5C-300RF1
R10 = 300, 5W, wirewound	Riedon	UB5C-300RF1
R11 = 120, 3W, wirewound	Riedon	UB3C-120RF1
R12 = 120, 3W, wirewound	Riedon	UB3C-120RF1
R13 = 5.11k, 0.25W, metal film	Yageo	MFR-25F8F52-5K11
R14 = 1k, 0.25W, metal film	Yageo	MFR-25F8F52-1K
R15 = 10, 0.25W, metal film	Yageo	MFR-25F8F52-10R
R16 = 1k, 0.25W, metal film	Yageo	MFR-25F8F52-1K
R17 = 10k, 0.25W, metal film	Yageo	MFR-25F8F52-10K
R18 = 1k, 0.25W, metal film	Yageo	MFR-25F8F52-1K
R19 = 2, 3W, wirewound	Riedon	UB3C-2RF1
R20 = 10k, 0.25W, metal film	Yageo	MFR-25F8F52-10K
R21 = 5.11k, 0.25W, metal film	Yageo	MFR-25F8F52-5K11
R22 = 5.11k, 0.25W, metal film	Yageo	MFR-25F8F52-5K11
R23 = 10k, 0.25W, metal film	Yageo	MFR-25F8F52-10K
R24 = 100k, 0.25W, metal film	Yageo	MFR-25F8F52-100K
R25 = 1k, 0.25W, metal film	Yageo	MFR-25F8F52-1K
R26 = 3.92k, 0.25W, metal film	Yageo	MFR-25F8F52-3K92

VR01 = 10k, 25 turns	Burns	3296W-103LF
VR02 = 10k, 25 turns	Burns	3296W-103LF
VR03 = 100k, 25 turns	Burns	3296W-104LF

C01 = 470u/25V, electrolytic	Nichicon	UHD1E471MPD
C02 = 470u/25V, electrolytic	Nichicon	UHD1E471MPD
C03 = 100u/50V, electrolytic	Nichicon	UP1J1H101MPD1TD
C04 = 470u/25V, electrolytic	Nichicon	UHD1E471MPD
C05 = 470u/25V, electrolytic	Nichicon	UHD1E471MPD
C06 = 470u/25V, electrolytic	Nichicon	UHD1E471MPD
C07 = 470u/25V, electrolytic	Nichicon	UHD1E471MPD
C08 = 100n/100V, film	WIMA	MKS2D031001A00J100
C09 = 100n/100V, film	WIMA	MKS2D031001A00J100
C10 = 10u/25V, tantalum	AVX Corp.	TAP106M025SRW
C11 = 10u/25V, tantalum	AVX Corp.	TAP106M025SRW
C12 = 100u/50V, electrolytic	Nichicon	UP1J1H101MPD1TD
C13 = 100n/100V, film	WIMA	MKS2D031001A00J100

D01 = 1N4007	Micro Commercial Co.	1N4007-TP
D02 = 1N4007	Micro Commercial Co.	1N4007-TP
D03 = 1N4007	Micro Commercial Co.	1N4007-TP
D04 = 1N4007	Micro Commercial Co.	1N4007-TP
D05 = 1N4007	Micro Commercial Co.	1N4007-TP
D06 = 1N4007	Micro Commercial Co.	1N4007-TP
D07 = 1N4007	Micro Commercial Co.	1N4007-TP
D08 = 1N4148	ON Semiconductor	1N4148
D09 = 1N4148	ON Semiconductor	1N4148
D10 = 1N4007	Micro Commercial Co.	1N4007-TP

BR01 = Bridge rectifier	SMC Diode Solutions	GBU1010TB
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T01 = ZVN3310A	Diodes Incorporated	ZVN3310A
T02 = ZTX614	Diodes Incorporated	ZTX614

U01 = LM358	Texas Instruments	LM358PE4
U01 = CD4013	Texas Instruments	CD4013BE
U01 = LM555CN/NOPB	Texas Instruments	LM555CN/NOPB

REL01 = 30A, 12V	TE Connectivity	T9GV1L14-12
REL02 = 30A, 12V	TE Connectivity	T9GV1L14-12
REL03 = 1A, 12V	Omron	G6K-2P DC12
REL04 = 1A, 12V	Omron	G6K-2P DC12
REL05 = 1A, 12V	Omron	G6K-2P DC12
REL06 = 1A, 12V	Omron	G6K-2P DC12

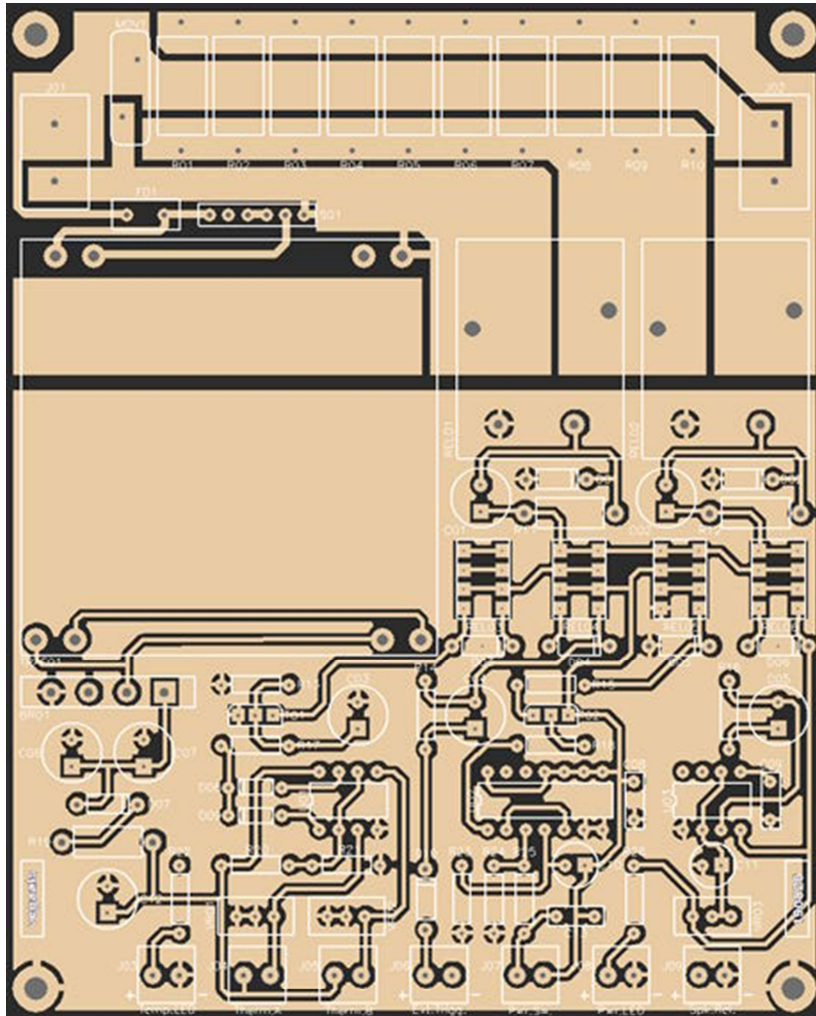
MOV1 = Varistor 430V	EPCOS	B72214S0271K101
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IC socket, 2 x 4, 2 pcs.	Mill-Max	110-13-308-41-001000
IC socket, 2 x 7, 1 pc.	Mill-Max	110-93-314-41-001000

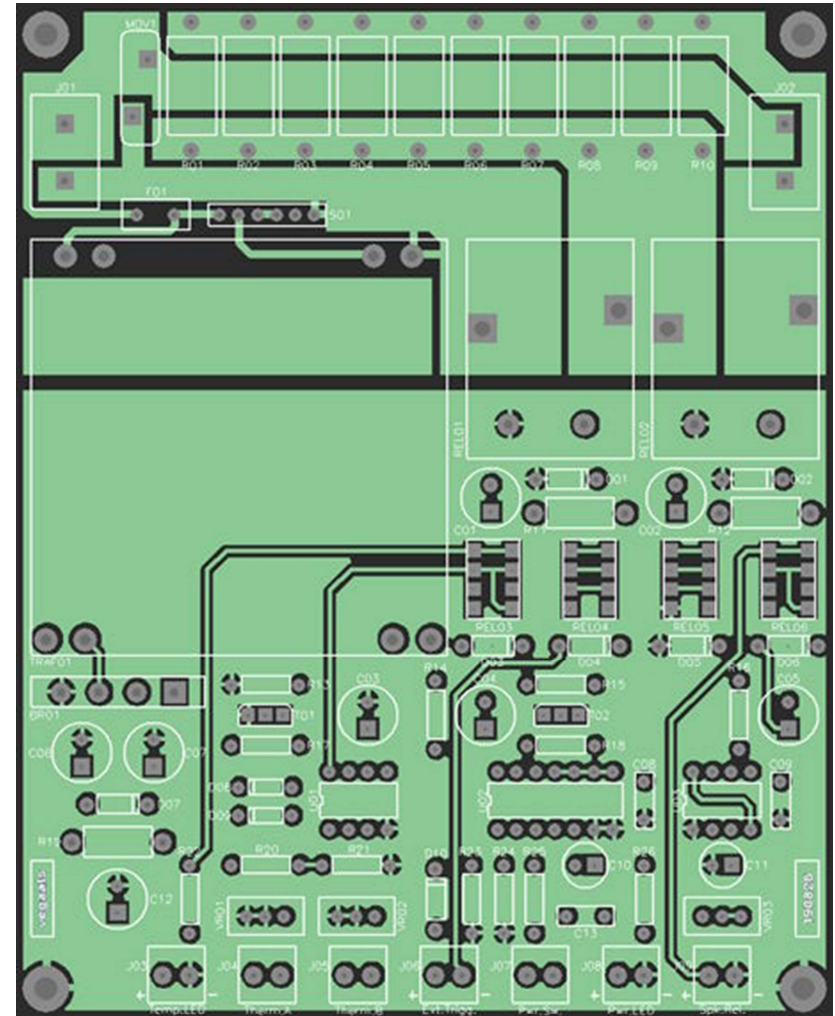
F01 = 100mA, SB	Bel Fuse	RST 100-BULK
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TRAF01	Talema	70041K
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S01 = PCB header, 5 pos.	Würth Electronics Inc.	61300611121
Conn Jumper Shorting	Sullins Connector	SPC025YAN



Top layer



Bottom layer