Power Supply +13.8V 5A with LM338

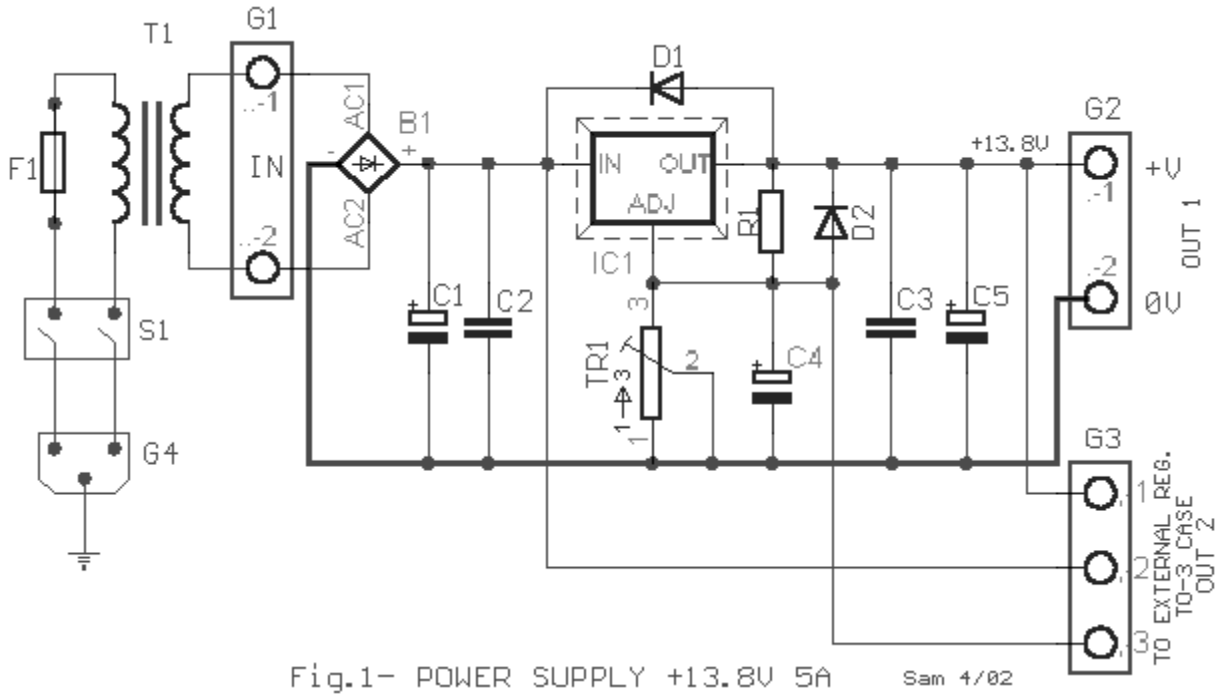

Fig.1- POWER SUPPLY +13.8V 5A Sam 4/02

Many times we needed one relatively powerful supply in order to we supply various appliances with + 13.8V, as transceivers CB, charge lead-acid batteries, etc. The circuit it uses known completed that is capable gives in the his exit, current in continuous operation 5A and 12A peak current. It does not only need few external component. Exist a point which it will be supposed you are careful in the drawing and in board. Board has been drawn so as to exist the possibility of using also two case types completing. In the first case the IC1 in case TO-220 is placed above in pcb, in second with case TO-3, it can it□s placed above in heatsink and terminal his they are connected in the connector G3, in this case, certain we leave empty the place of IC1 above in pcb. A other point is the refrigeration of rectifier B1. If it□s placed above in pcb, then it will be supposed clinch on his piece aluminium in form U, in opposite case, if the rectifier B1 is placed except pcb should clinch in a point in his chassis and terminal are connected with suitable cross-section cables in the corresponding points above in pcb. The regulation of voltage in + 13.8V become with the trimmer TR1, (multiturn). The IC1 should in every case be placed on one suitable heatsink, which good is supportable by one

fan. All the connections by the circuit become with big cross-section cables , beacause the current that passes from in them is enough high. If they are not used the connectors that appear in pcb, then you can place pins or solderer the cables at straight line above in pcb

R1=270R 1/4W 2%	C4-5=10uF 25V	T1=220Vac/15VAC - 8A Mains Transformer
TR1=4k7 (Multiturn)	D1-2=1N4002 (1A/100V)	S1=2 Pole Single Throw Mains Switch
C1=10000uF 40V	B1=25A Bridge Rectifier	F1=250mA Fuse
C2-3=100 nF 100V Polyester	IC1=**LM338**	

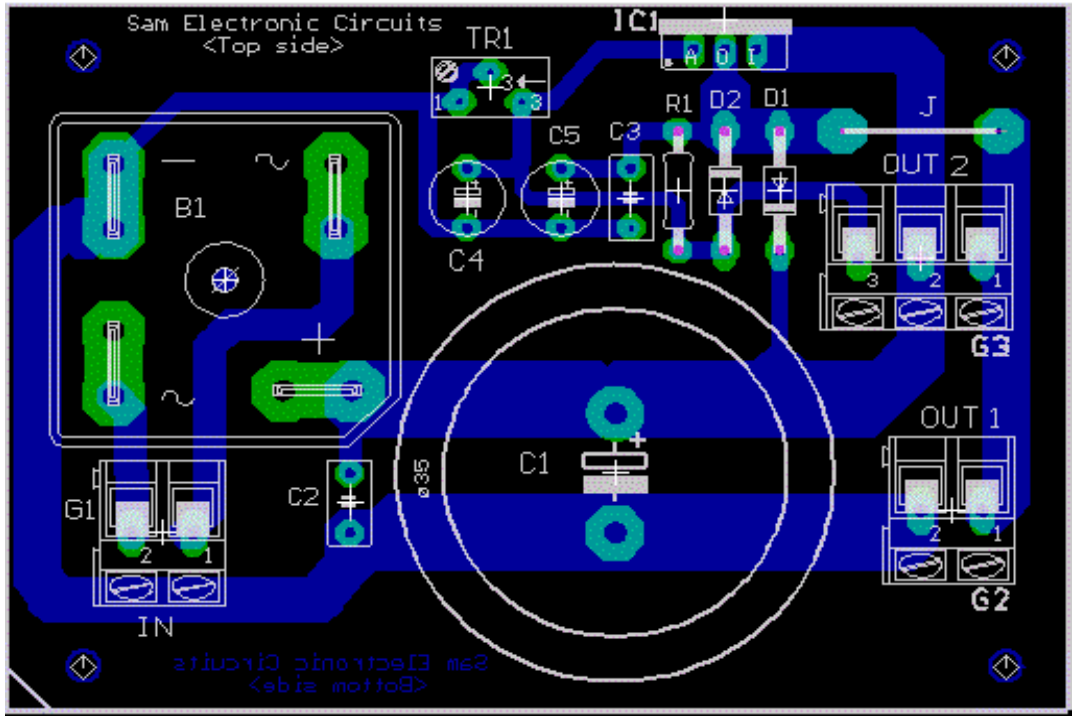

Fig.2- Top (Component) side PCB.

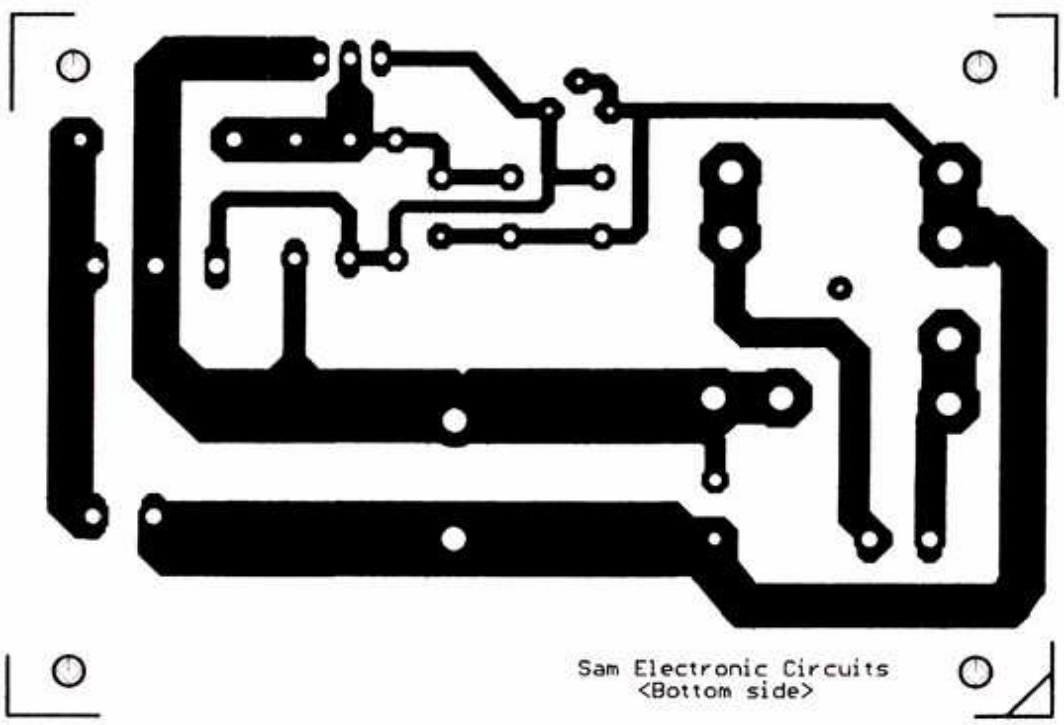

Fig.3- Bottom side PCB.