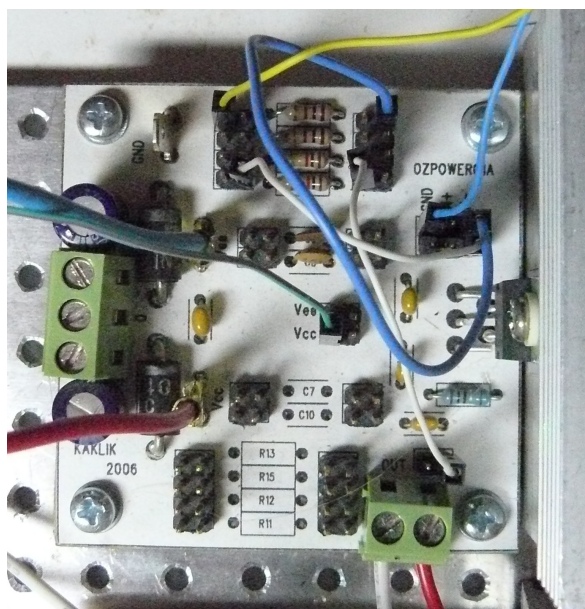# Power operational amplifier module

Jakub Kákona

This module is designed to use as power driver for middle current applications.

1.Technical parameters

Parameter	Value	Note
Max current	3A	With forced cooling
Supply Voltage	±20V	

2.Construction

2.1.Introduction

2.2.Module circuit

Circuit of this module is derived from catalog informations.
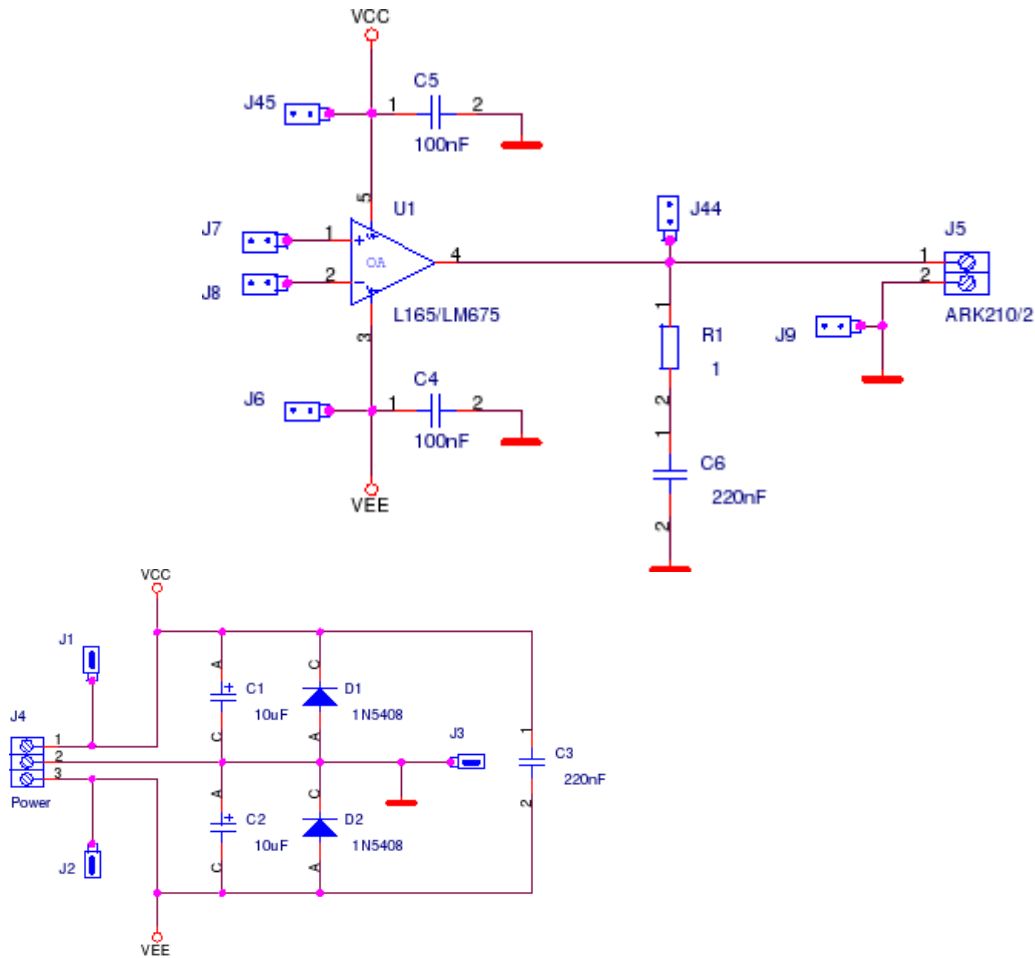
2.3.Integrated circuits

Almost any power operational amplifier in pentawatt 5 package is suitable for mount to PCB. The construction is tested with L165.
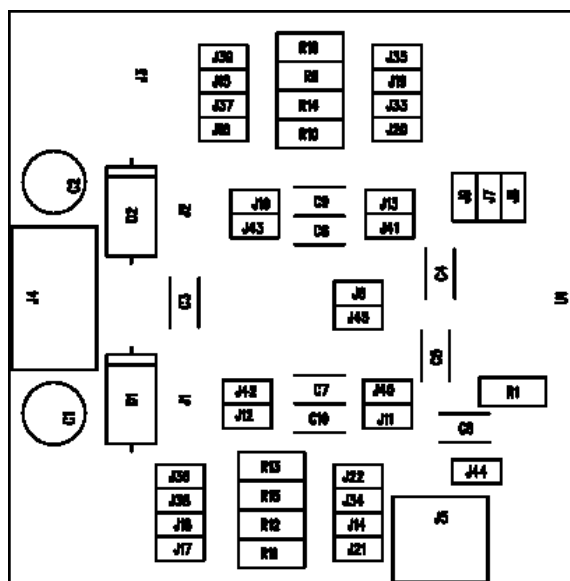
2.4.Mechanical construction

Module is optimized to allow mounting of a heat sink on the power chip package. All dimensions are compliant with MLAB standard.

3.Assembling and testing

3.1.Assembling

Assembling of this module is quite basic.

Quantity	Reference	Part
2	C1,C2	10uF
3	C3,C6,C10	220nF
3	C4,C5,C9	100nF
1	C7	100p
1	C8	2nF
2	D1,D2	1N5408
33	J1,J2,J3,J6,J7,J8,J9,J10,	UNIPAD2
	J11,J12,J13,J14,J15,J16,	
	J17,J18,J19,J20,J21,J22,	
	J33,J34,J35,J36,J37,J38,	
	J39,J40,J41,J42,J43,J44,	
	J45	
1	J4	Power
1	J5	ARK210/2
4	M1,M2,M3,M4	HOLE_M3
2	M5,M6	FIDU
1	R1	1
1	R9	100
1	R10	1k
1	R11	10k
1	R12	100k
1	R13	1M
3	R14,R15,R16	RL090
1	U1	L165/LM675

3.2.Testing

If we want to test this module we must do it carefully. Because we working with some type of power electronic and connecting full voltage source without current limitation isn't good idea.

We must use an CURRENT LIMITED source. For do this practice.

4.Bugs and ideas

There is no known any important problems at the moment.