rotation of TR3 will increase V value of V-meter 1 and should have no effect on mV value of V-meter 2 readings. Rotate trimmer TR3 in a direction to reach our final target goal 4,00 V reading on V-meter 1 (meaning 4,00 V/22 Ohm = 182 mA output bias current + front end bias current). If at this point mV reading on V-meter 2 is no longer 0 mV (tolerance of +/- 5 mV is acceptable) repeat Step 1 and Step 2 procedure as described, to reach our final target values.

Normal operation

In order to use VSSA mosfet amplifier module properly, normal operation connection diagram is proposed (Fig.3) within operating conditions recommendations as specified in Table 2.

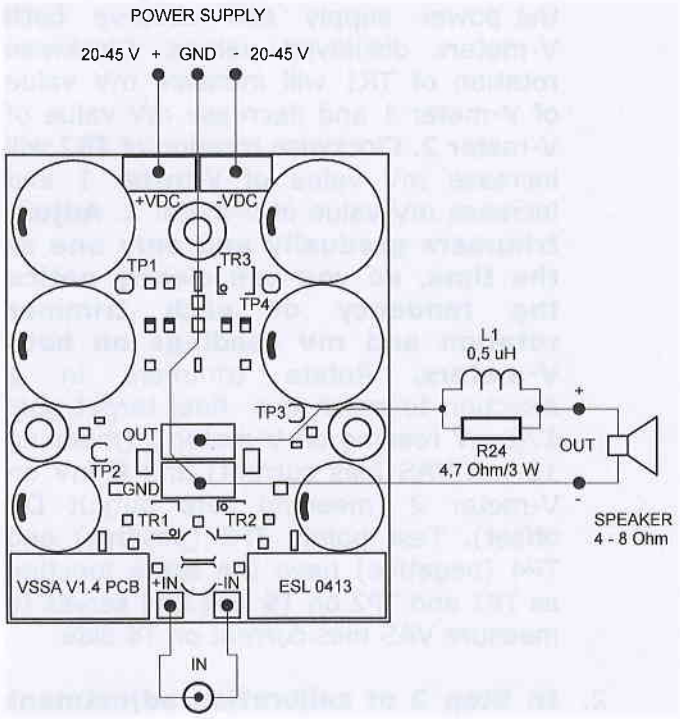

Fig.3 Normal operation connection diagram

Optional RL parallel output filter consists of metal film axial resistor R24 (4,7 Ω, 3,0 W, 5%) and inductor L1 (0,5 μH, Φ1,5 mm enamelled Copper wire, 18 turns on R24) connected in series from OUT tab terminal to positive speaker output terminal (Fig.3). This filter serves as a serial damping impedance to prevent excessive output signal ringing or even parasitic oscillations in a case of capacitive impedance character of speakers connected to VSSA mosfet amplifier module. For a vast majority of speakers this filter is not essential, since they have inductive impedance character, nevertheless to be on a safe side this RL filter is highly recommended.

Thermal considerations

To ensure proper operating conditions to VSSA amplifier module, temperature of the main heatsink should never exceed the limit value of 75°C (Table 1). This is even more important since VSSA module has only one dual output mosfet transistor, so it is of utmost importance to keep it at low temperature range at all times, to get best out of its performance. Therefore heatsink power dissipation efficiency must be high, resulting in thermal resistance Rth=0,5 K/W or less. VSSA amplifier module (KSA/KSC and ALF transistor bottoms) is fixed to the heatsink surface by three M3 x 16 mm bolts tighten to M3 x 10 mm threaded holes. ALF transistor must be isolated from the heatsing by kapton insulator washer, KSA/KSC are already isolated, so only needs to be coated with silicon grease over their bottom surfaces.

Technical specifications

Voltage gain:	27 dB
Input impedance:	10 kΩ ll 100 pF
Output impedance:	5 mΩ (20 Hz to 20 kHz)
Power bandwidth:	10 Hz to 100 kHz (-3 dB)
Output Power:	100 Wrms/8 Ohm max.
Overall height:	38 mm