



## Krell-Clone KSA-50 II

### Main PCB (Amplifier Circuit)

|                                      |             |                 |  |
|--------------------------------------|-------------|-----------------|--|
| R101                                 | 1K0         |                 | All resistors 0.5 Watt                                   |
| R102                                 | 22K2        |                 |  |
| R103, R107                           | 47K0        |                 |  |
| R104, R106                           | 4K7         |                 |  |
| R105                                 | 5K          | 10-turn pot     |  |
| R108, R109, R112, R113<br>R116, R117 | 1K58        |                 |  |
| R110, R111                           | 9K1         |                 |  |
| R114, R115, R118, R119               | 100R        |                 |  |
| R120, R121                           | 3K39        |                 |  |
| R122, R123                           | 101R        |                 |  |
| R124                                 |             |                 |  |
| R125                                 |             | 10-turn Pot     |  |
| R126                                 | 5K          |                 |  |
| R127, R128                           | 25R         |                 |  |
| R130, R131                           | 22K0        |                 |  |
| R144                                 | 5K          | 10-turn Pot     | Only needed for easy switch<br>between Norm and Low Bias |
|                                      |             |                 |  |
| C101                                 | 620 pF      | Optional        |  |
| C102, C103                           | 1000uF, 15V |                 |  |
| C105, C106                           | 390 pF      |                 |  |
| C107, C108                           | 100 pF      |                 |  |
| C109                                 | 100 nF      |                 |  |
| C110, C111                           | 10 uF, 16V  |                 |  |
|                                      |             |                 |  |
| D109, D110                           | 1N4148      | Or equivalent   |  |
| ZD101, ZD102                         | ZD9841      | Or equivalent   |  |
|                                      |             |                 |  |
| Q101, Q103                           | 2SC2240     | Or equivalent   |  |
| Q102, Q104                           | 2SA970      | Or equivalent   |  |
| Q105                                 | MPSA92      | Or equivalent   |  |
| Q106                                 | MPSA42      | Or equivalent   |  |
| Q107, Q110                           | MJE15033    | Or equivalent   | Q110 must be fitted with<br>appropriate heatsink         |
| Q108, Q109                           | MJE15032    | Or equivalent   | Q109 must be fitted with<br>appropriate heatsink         |
| Q111                                 | 2SC3955     | Bias transistor | Fitted to main heatsink                                  |



## Output Section

|                        |          |               |          |
|------------------------|----------|---------------|----------|
| R132, R133, R134, R135 | 2R2      |               | 0.5 Watt |
| R201, R202, R203, R204 | 0.5R     |               | 5 Watt   |
| R205                   | 4R7      |               | 5 Watt   |
| R206                   | 10R      |               | 5 Watt   |
| C201                   | 100nF    | Optional      |          |
| D201, D202             | 1N5059   |               |          |
| L201                   | 2uH      | Optional      |          |
| Q201, Q203             | MJL21194 | Or equivalent |          |
| Q202, Q204             | MJL21193 | Or equivalent |          |

## Optional Protection Circuit

|                                      |           |               |  |
|--------------------------------------|-----------|---------------|--|
| R301, R302                           | 100R      |               |  |
| R303, R304, R305, R306               | *200R     |               |  |
| C301, C302                           | 22uF, 16V |               |  |
| D301, D302, D303, D304<br>D305, D306 | 1N4148    |               |  |
| Q301                                 | MPSA42    | Or equivalent |  |
| Q302                                 | MPSA92    | Or equivalent |  |

\* If more output devices are applied, then R303/R304/Rxxx = 100R for safe SOA operation