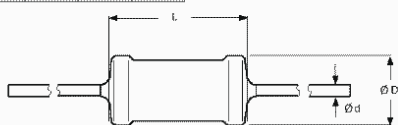
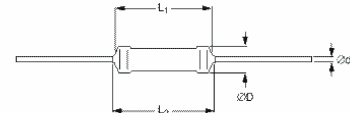
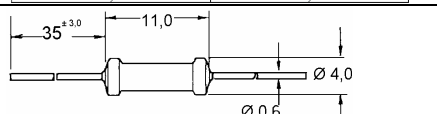
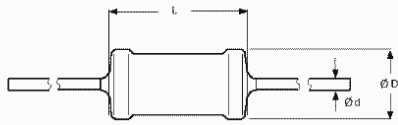
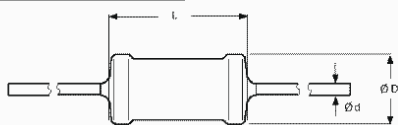
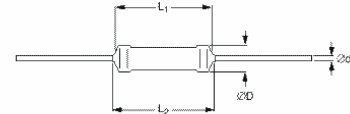
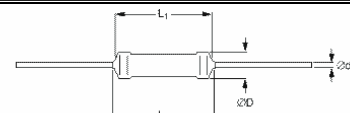
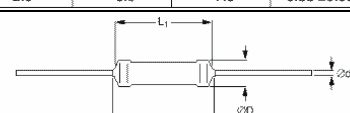


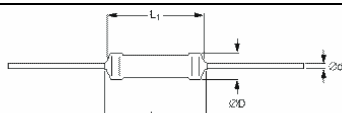
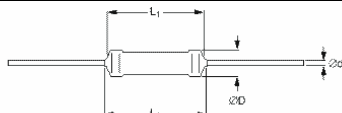
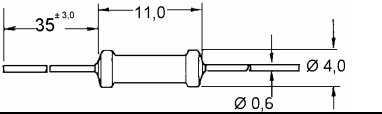
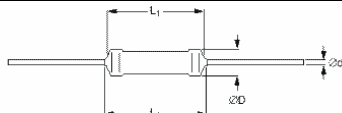
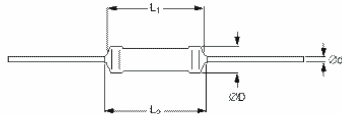
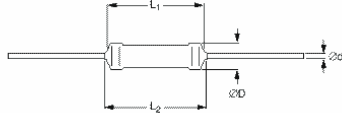
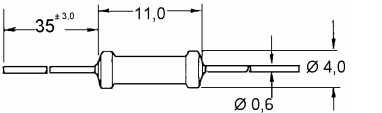
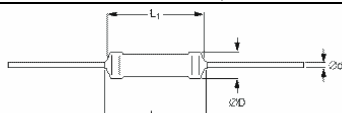
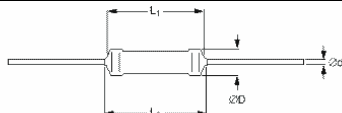
# **DELTA AUDIO LEACH AMP CLONE** (6 transistor version)

## Parts List

(Last updated 10.07.2005)

| Qty | Value  | Device   | Order number and additional notes |
|-----|--|--|-----------------------------------|
| 3   | 2 pin terminal block<br>5 mm pin spacing<br>Optional                     | OUT, VCC, VSS                                    |                                   |
| 2   | 2 pin header<br>2.54 mm pin spacing                                      | IN TH1   |                                   |
| 2   | 10000 uF 80 – 100V<br>40 mm in diameter<br>10 mm pin spacing             | C21, C27   |                                   |
| 4   | 100 uF 100V<br>13 mm in diameter<br>5 mm pin spacing                     | C1, C3, C10, C14                                 |                                   |
| 2   | 470 uF 16V<br>10.5mm in diameter<br>5 mm pin spacing<br>Not polarised    | C7, C12  | DIGIKEY: P1170-ND                 |
| 5   | 1 uF 63V film, PE or PP<br>5 x 7.2 mm box<br>5 mm pin spacing            | C4, C6, C11, C13, C19                            |                                   |
| 1   | 1 uF 100V, PE or PP<br>7.2 x 18.3 mm box<br>15 mm pin spacing            | C33  |                                   |
| 9   | 100 nF 100V, PE or PP<br>6.4 x 13.3 mm box<br>10 mm pin spacing          | C2, C15, C22, C23,<br>C24, C28, C29, C30,<br>C34 |                                   |
| 2   | 10 pF 500V MICA<br>Depth: 4.32mm; Width: 11.43mm<br>5.72 mm Pins pacing  | C16, C20   | DIGIKEY:338-1061-ND               |
| 1   | 39 pF 500V MICA<br>Depth: 4.32mm; Width: 11.43mm<br>5.72 mm Pins pacing  | C5   | DIGIKEY:338-1093-ND               |
| 1   | 180 pF 500V MICA<br>Depth: 4.32mm; Width: 11.43mm<br>5.72 mm Pins pacing | C9   | DIGIKEY:338-1082-ND               |
| 2   | 100 pF 63V, PE or PP<br>5 x 7.2 mm box<br>5 mm pin spacing               | C17, C18   |                                   |
| 1   | 330 pF 63V, PE or PP<br>5 x 7.2 mm box<br>5 mm pin spacing               | C8   |                                   |
| 2   | 10 nF 63V, PE or PP<br>3 x 7.2 mm box<br>5 mm pin spacing                | C35, C42   |                                   |
| 6   | 1N4007   | D6, D8, D9, D11, D15,<br>D16                     | DIGIKEY:1N4007RLOSCT-ND           |
| 6   | 1N4148   | D5, D7, D10, D12, D13,<br>D14                    | DIGIKEY: 1N4148FS-ND              |
| 4   | 20V zener; 0.5W  | D1, D2, D3, D4                                   | DIGIKEY: 1N5250DO35MSCT-ND        |

| 6                  | 0R47 5W  | R46, R47, R48, R52,<br>R53, R54     | <table border="1"> <thead> <tr> <th>TYPE</th><th>ØD<br/>MAX.<br/>(mm)</th><th>L<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>5W</td><td>7.5</td><td>17</td><td>0.8</td></tr> <tr> <td>7W</td><td>7.5</td><td>25</td><td>±0.03</td></tr> </tbody> </table>    | TYPE               | ØD<br>MAX.<br>(mm) | L<br>MAX.<br>(mm)  | Ød<br>(mm) | 5W  | 7.5 | 17  | 0.8        | 7W | 7.5 | 25 | ±0.03 |
|--------------------|--|-------------------------------------|--|--------------------|--------------------|--------------------|------------|-----|-----|-----|------------|----|-----|----|-------|
| TYPE               | ØD<br>MAX.<br>(mm)                                       | L<br>MAX.<br>(mm)                   | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 5W                 | 7.5  | 17                                  | 0.8  |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 7W                 | 7.5  | 25                                  | ±0.03  |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 9                  | 10R 1% 0.6W  | R4, R36, R37, R38,<br>R63, R64, R65 |  <table border="1"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table>                                    | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |    |     |    |       |
| ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm)                                       | L2<br>MAX.<br>(mm)                  | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 2.5                | 6.5  | 7.5                                 | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 12                 | 10R 5% 1W<br>Optional<br>Do not mount if F3 + F4 is used | R1, R23                             |    |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 1                  | 10R 5W   | R57                                 | <table border="1"> <thead> <tr> <th>TYPE</th><th>ØD<br/>MAX.<br/>(mm)</th><th>L<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>5W</td><td>7.5</td><td>17</td><td>0.8</td></tr> <tr> <td>7W</td><td>7.5</td><td>25</td><td>±0.03</td></tr> </tbody> </table>   | TYPE               | ØD<br>MAX.<br>(mm) | L<br>MAX.<br>(mm)  | Ød<br>(mm) | 5W  | 7.5 | 17  | 0.8        | 7W | 7.5 | 25 | ±0.03 |
| TYPE               | ØD<br>MAX.<br>(mm)                                       | L<br>MAX.<br>(mm)                   | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 5W                 | 7.5  | 17                                  | 0.8  |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 7W                 | 7.5  | 25                                  | ±0.03  |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 1                  | 10R 5W // 10 turns of 1mm <sup>2</sup> wire              | L//R                                | <table border="1"> <thead> <tr> <th>TYPE</th><th>ØD<br/>MAX.<br/>(mm)</th><th>L<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>5W</td><td>7.5</td><td>17</td><td>0.8</td></tr> <tr> <td>7W</td><td>7.5</td><td>25</td><td>±0.03</td></tr> </tbody> </table>  | TYPE               | ØD<br>MAX.<br>(mm) | L<br>MAX.<br>(mm)  | Ød<br>(mm) | 5W  | 7.5 | 17  | 0.8        | 7W | 7.5 | 25 | ±0.03 |
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| 5W                 | 7.5  | 17                                  | 0.8  |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 7W                 | 7.5  | 25                                  | ±0.03  |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 2                  | 1k 1% 0.6W   | R16, R32                            |  <table border="1"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table>                                  | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |    |     |    |       |
| ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm)                                       | L2<br>MAX.<br>(mm)                  | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 2.5                | 6.5  | 7.5                                 | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 2                  | 1k2 1% 0.6W  | R2, R21                             |  <table border="1"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table>                                  | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |    |     |    |       |
| ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm)                                       | L2<br>MAX.<br>(mm)                  | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 2.5                | 6.5  | 7.5                                 | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 2                  | 12k 1% 0.6W  | R5, R20                             |  <table border="1"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table>                                  | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |    |     |    |       |
| ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm)                                       | L2<br>MAX.<br>(mm)                  | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |    |     |    |       |
| 2.5                | 6.5  | 7.5                                 | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |    |     |    |       |

| 1                  | 220R 1% 0.6W             | R51   |  <table border="1" data-bbox="973 347 1372 436"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table>     | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |
|--------------------|--------------------------|---|--|--------------------|--------------------|--------------------|------------|-----|-----|-----|------------|
| ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm)       | L2<br>MAX.<br>(mm)  | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |
| 2.5                | 6.5                      | 7.5   | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |
| 2                  | 2k2 1% 0.6W              | R11, R29  |  <table border="1" data-bbox="973 560 1372 649"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table>     | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |
| ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm)       | L2<br>MAX.<br>(mm)  | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |
| 2.5                | 6.5                      | 7.5   | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |
| 2                  | 3k9 5% 1W                | R3, R22,  | <p>Calculate as <math>(V - 40)/8.2</math></p>    |                    |                    |                    |            |     |     |     |            |
| 2                  | 22k 1% 0.6W              | R8, R17   |  <table border="1" data-bbox="973 918 1372 1008"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table>    | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |
| ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm)       | L2<br>MAX.<br>(mm)  | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |
| 2.5                | 6.5                      | 7.5   | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |
| 2                  | 33R 1% 0.6W              | R24, R35  |  <table border="1" data-bbox="973 1131 1372 1220"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table> | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |
| ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm)       | L2<br>MAX.<br>(mm)  | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |
| 2.5                | 6.5                      | 7.5   | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |
| 22                 | 330R 1% 0.6W             | R6, R7, R9, R10, R14,<br>R15, R18, R19, R25,<br>R27, R31, R33 |  <table border="1" data-bbox="973 1344 1372 1433"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table> | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |
| ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm)       | L2<br>MAX.<br>(mm)  | Ød<br>(mm)   |                    |                    |                    |            |     |     |     |            |
| 2.5                | 6.5                      | 7.5   | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |
| 1                  | 4k7 Trimmer B64Y or B64W | P1  |  |                    |                    |                    |            |     |     |     |            |
|                    | TO BE DEFINED            | R26, R34, R68, R69  |    |                    |                    |                    |            |     |     |     |            |
| 2                  | 11k 1% 0.6W              | R12, R13  |  <table border="1" data-bbox="973 1691 1372 1780"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table> | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |
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| 2.5                | 6.5                      | 7.5   | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |
|                    | TO BE DEFINED            | R41, R42, R43, R60,<br>R61, R62, R28, R30                     |  <table border="1" data-bbox="973 1904 1372 1993"> <thead> <tr> <th>ØD<br/>MAX.<br/>(mm)</th><th>L1<br/>MAX.<br/>(mm)</th><th>L2<br/>MAX.<br/>(mm)</th><th>Ød<br/>(mm)</th></tr> </thead> <tbody> <tr> <td>2.5</td><td>6.5</td><td>7.5</td><td>0.58 ±0.05</td></tr> </tbody> </table> | ØD<br>MAX.<br>(mm) | L1<br>MAX.<br>(mm) | L2<br>MAX.<br>(mm) | Ød<br>(mm) | 2.5 | 6.5 | 7.5 | 0.58 ±0.05 |
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| 2.5                | 6.5                      | 7.5   | 0.58 ±0.05   |                    |                    |                    |            |     |     |     |            |

|   |   |                           |  |
|---|---|---------------------------|--|
| 6 | MPSA42  | T1, T2, T3, T10, T11, T15 |  |
| 5 | MPSA92  | T4, T5, T6, T7, T12       |  |
| 2 | MJE340  | T9, T14                   |  |
| 2 | MJE350  | T8, T13                   |  |
| 1 | MJE15032<br>Mount on small heatsink (DIY)                     | T21                       | Please report if you find an off the shelf heatsink that works |
| 1 | MJE15033<br>Mount on small heatsink (DIY)                     | T22                       | Please report if you find an off the shelf heatsink that works |
| 3 | MJL4302 / MJL1302 / 2SA1302                                   | T23, T24, T25, T26, T27   |  |
| 3 | MJL4281 / MJL3281 / 2SC3280                                   | T16, T17, T18, T19, T20   |  |
| 2 | 12A<br>Length 25mm width 10mm<br>22.5 mm Pins pacing          | F1, F2<br>Fuse holder     |  |
| 2 | 100mA<br>Fuseholdes round<br>Optional<br>More details to come | F3, F4                    |  |