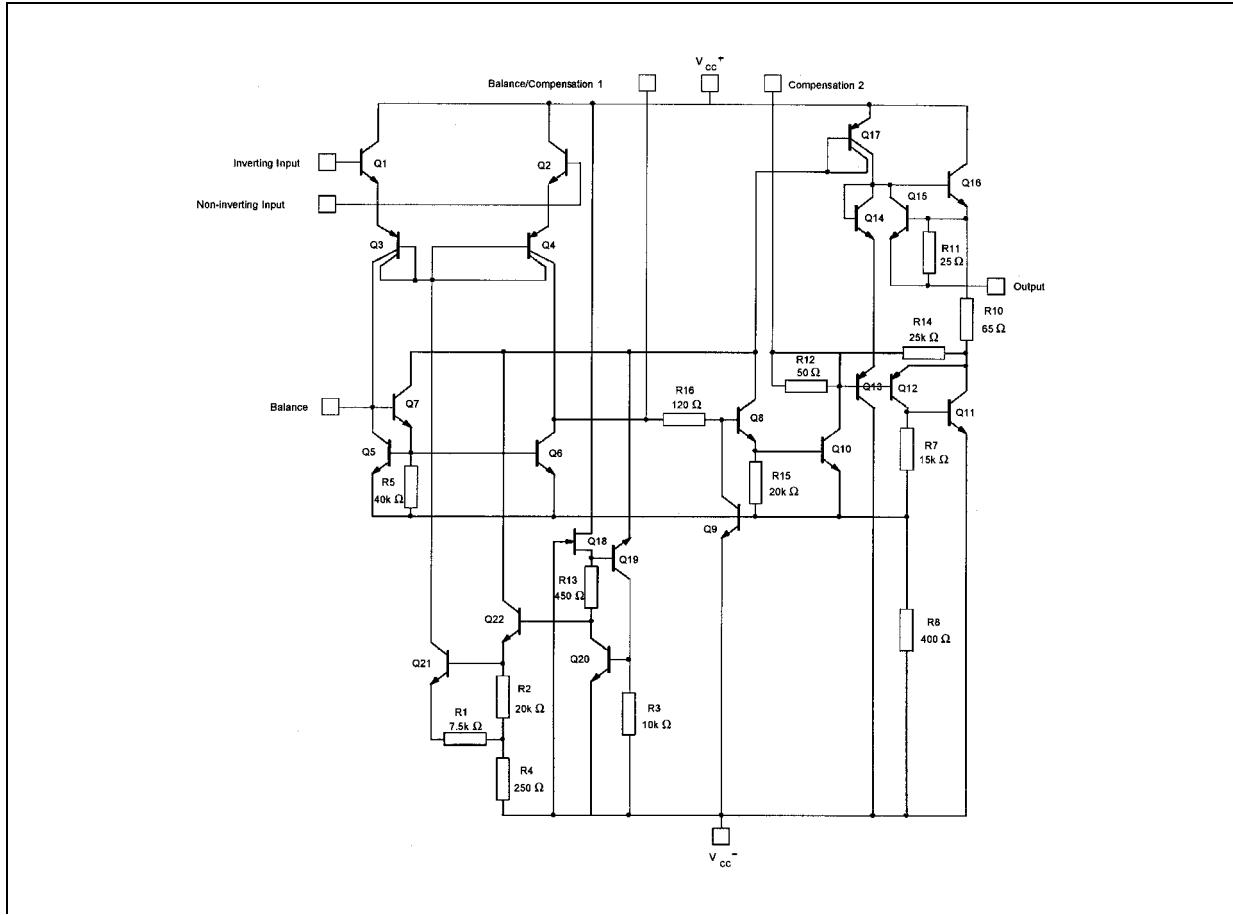




**SCHEMATIC DIAGRAM**

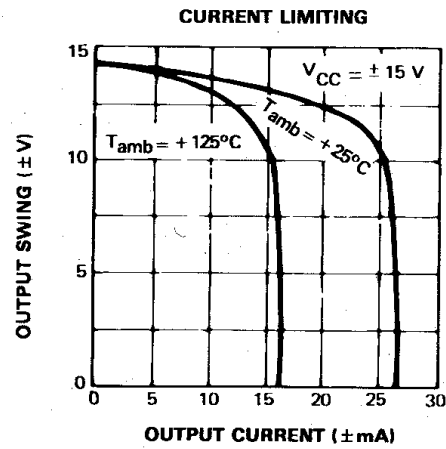
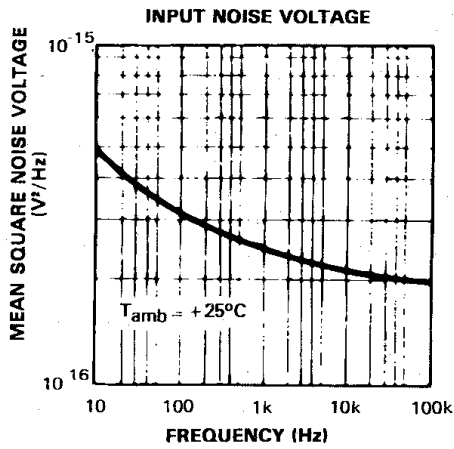
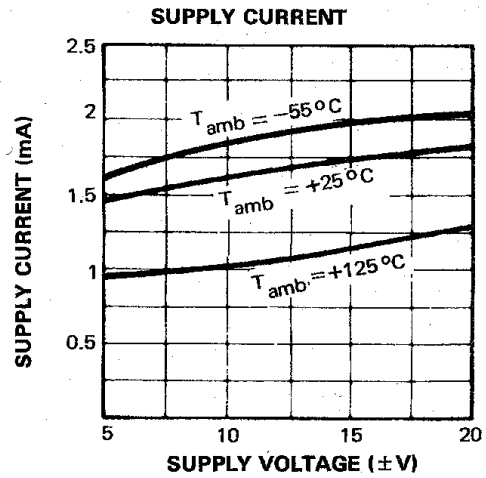
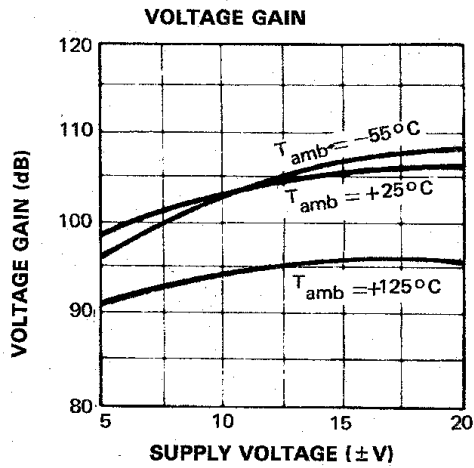


**ABSOLUTE MAXIMUM RATINGS**

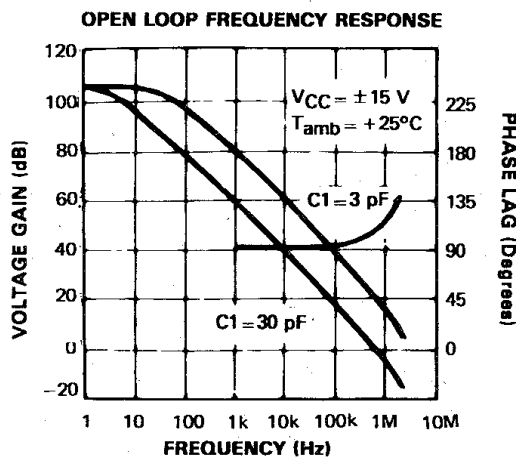
| Symbol     | Parameter                            | UA748M      | UA748I      | UA748C   | Unit |
|------------|--------------------------------------|-------------|-------------|----------|------|
| $V_{CC}$   | Supply voltage                       |             | $\pm 22$    |          | V    |
| $V_{id}$   | Differential Input Voltage           |             | $\pm 30$    |          | V    |
| $V_i$      | Input Voltage                        |             | $\pm 15$    |          | V    |
| $P_{tot}$  | Power Dissipation <sup>1)</sup>      |             | 500         |          | mW   |
|            | Output Short-circuit Duration        |             | Infinite    |          |      |
| $T_{oper}$ | Operating Free-air Temperature Range | -55 to +125 | -40 to +105 | 0 to +70 | °C   |
| $T_{stg}$  | Storage Temperature Range            |             | -65 to +150 |          | °C   |

1. Power dissipation must be considered to ensure maximum junction temperature ( $T_j$ ) is not exceeded.

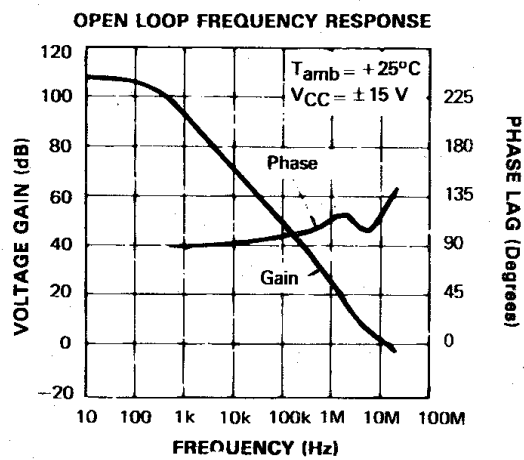


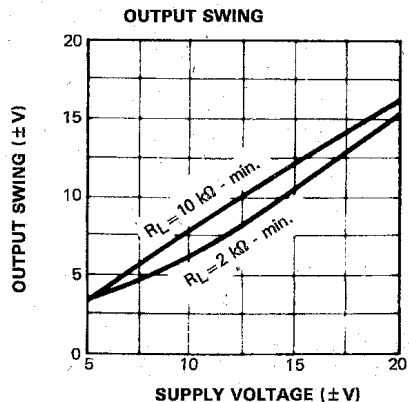
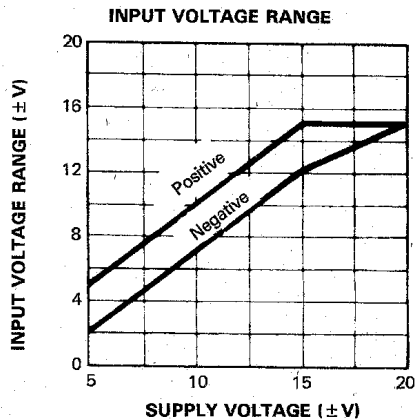


## SINGLE POLE COMPENSATION

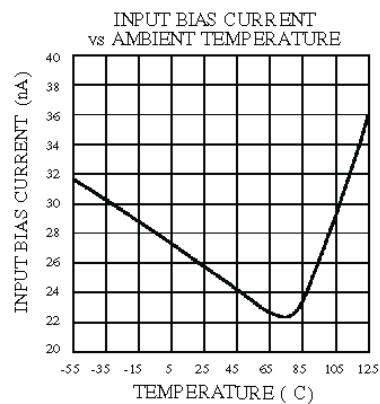
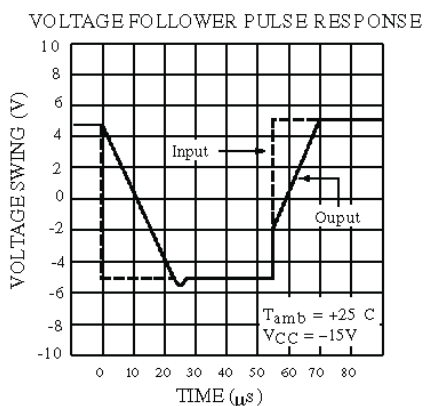
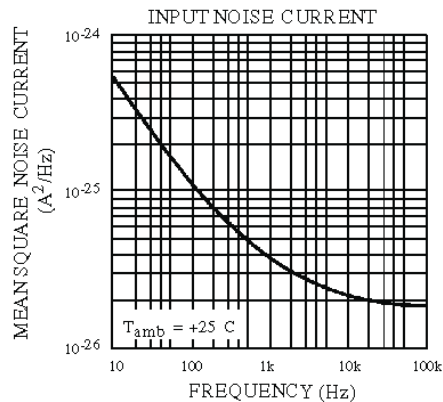
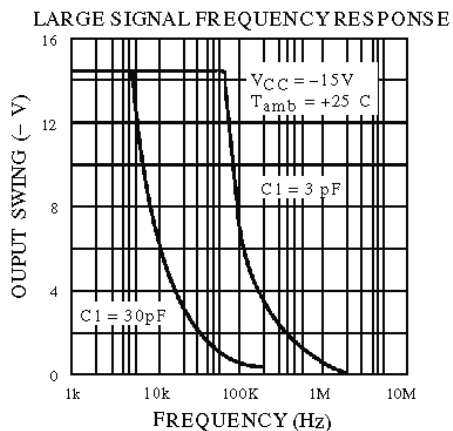


## FEED FORWARD COMPENSATION

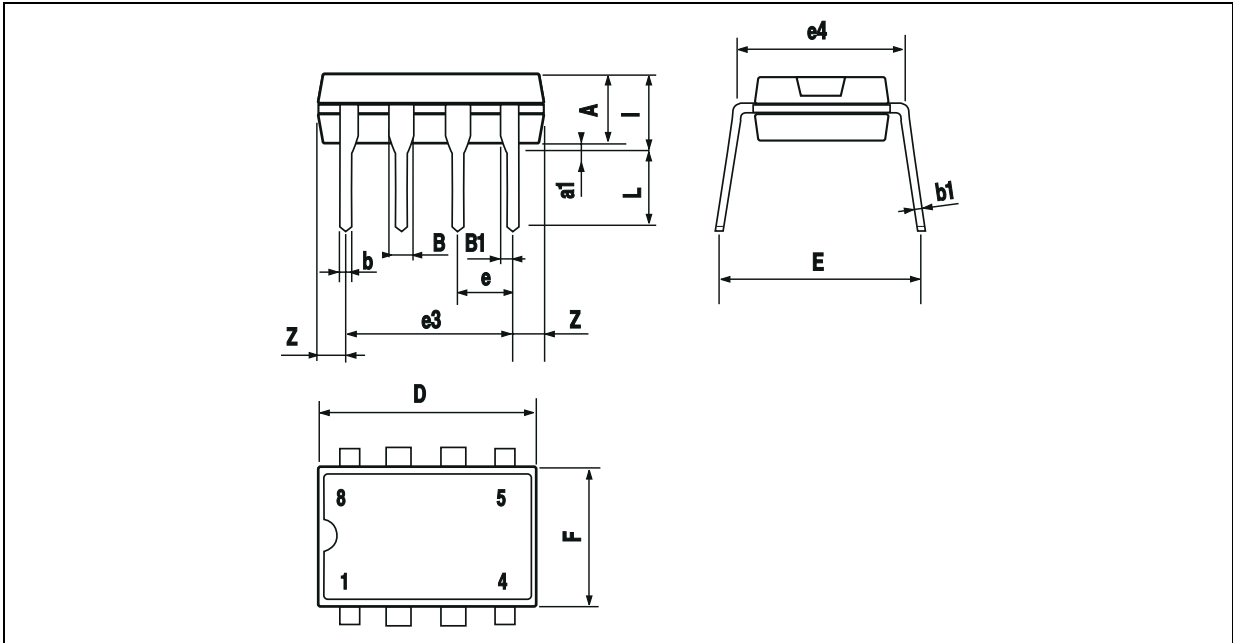




## SINGLE POLE COMPENSATION

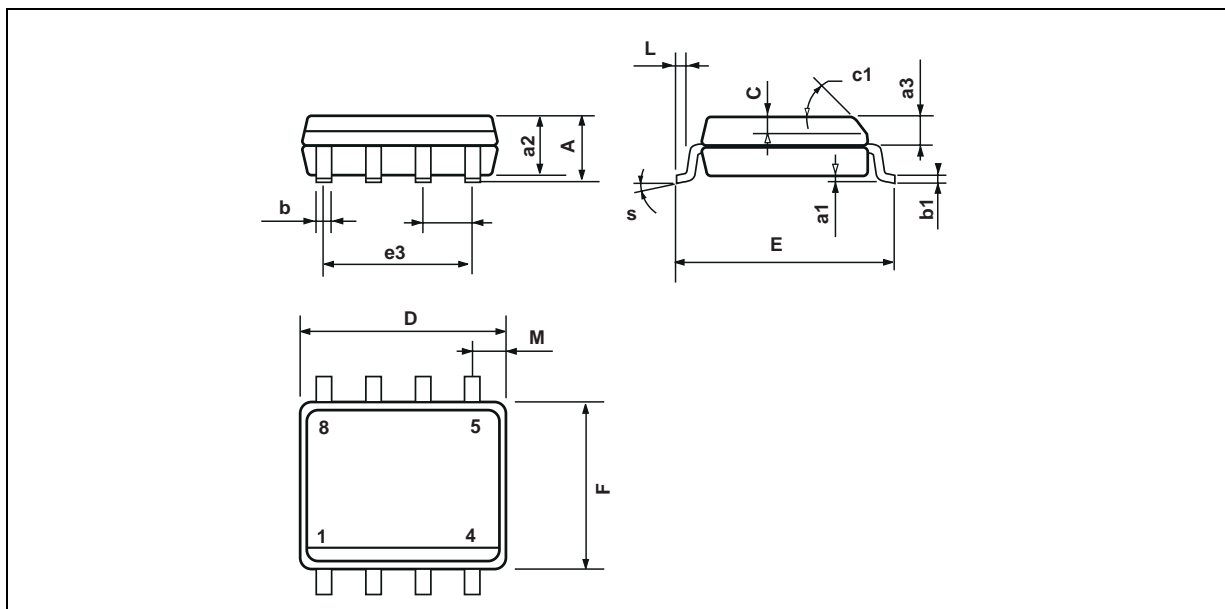


**PACKAGE MECHANICAL DATA**  
8 PINS - PLASTIC DIP



| Dim. | Millimeters |      |       | Inches |       |       |
|------|-------------|------|-------|--------|-------|-------|
|      | Min.        | Typ. | Max.  | Min.   | Typ.  | Max.  |
| A    |             | 3.32 |       |        | 0.131 |       |
| a1   | 0.51        |      |       | 0.020  |       |       |
| B    | 1.15        |      | 1.65  | 0.045  |       | 0.065 |
| b    | 0.356       |      | 0.55  | 0.014  |       | 0.022 |
| b1   | 0.204       |      | 0.304 | 0.008  |       | 0.012 |
| D    |             |      | 10.92 |        |       | 0.430 |
| E    | 7.95        |      | 9.75  | 0.313  |       | 0.384 |
| e    |             | 2.54 |       |        | 0.100 |       |
| e3   |             | 7.62 |       |        | 0.300 |       |
| e4   |             | 7.62 |       |        | 0.300 |       |
| F    |             |      | 6.6   |        |       | 0.260 |
| i    |             |      | 5.08  |        |       | 0.200 |
| L    | 3.18        |      | 3.81  | 0.125  |       | 0.150 |
| Z    |             |      | 1.52  |        |       | 0.060 |

**PACKAGE MECHANICAL DATA**  
**8 PINS - PLASTIC MICROPACKAGE (SO)**



| Dim. | Millimeters |      |      | Inches |       |       |
|------|-------------|------|------|--------|-------|-------|
|      | Min.        | Typ. | Max. | Min.   | Typ.  | Max.  |
| A    |             |      | 1.75 |        |       | 0.069 |
| a1   | 0.1         |      | 0.25 | 0.004  |       | 0.010 |
| a2   |             |      | 1.65 |        |       | 0.065 |
| a3   | 0.65        |      | 0.85 | 0.026  |       | 0.033 |
| b    | 0.35        |      | 0.48 | 0.014  |       | 0.019 |
| b1   | 0.19        |      | 0.25 | 0.007  |       | 0.010 |
| C    | 0.25        |      | 0.5  | 0.010  |       | 0.020 |
| c1   | 45° (typ.)  |      |      |        |       |       |
| D    | 4.8         |      | 5.0  | 0.189  |       | 0.197 |
| E    | 5.8         |      | 6.2  | 0.228  |       | 0.244 |
| e    |             | 1.27 |      |        | 0.050 |       |
| e3   |             | 3.81 |      |        | 0.150 |       |
| F    | 3.8         |      | 4.0  | 0.150  |       | 0.157 |
| L    | 0.4         |      | 1.27 | 0.016  |       | 0.050 |
| M    |             |      | 0.6  |        |       | 0.024 |
| S    | 8° (max.)   |      |      |        |       |       |

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