**ПРИЛОЖЕНИЕ 3.1.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| № | ЕC, B | Тип БТ | IC.OP1,2 | RSS | uH | RH(V) | KU.NOM | № | ЕC, B | Тип БТ | IC.OP1,2 | RSS | uH | RH | KU.NOM |
| 1 | 9 | KT373A | 1.2 | 1.0 | 1.5 | 0.6 | 80 | 10 | 9 | KT371A | 2.0 | 0.4 | 1.4 | 2.0 | 50 |
| 2 | 12 | KT3102B | 1.5 | 0.6 | 2.0 | 1.0 | 110 | 11 | 12 | KT3102E | 2.5 | 0.75 | 2.4 | 0.75 | 150 |
| 3 | 15 | KT315B | 2.0 | 0.3 | 3.0 | 2.0 | 90 | 12 | 15 | KT371B | 1.2 | 0.9 | 3.2 | 1.4 | 100 |
| 4 | 9 | KT3102G | 2.5 | 0.8 | 1.0 | 0.75 | 50 | 13 | 9 | KT373V | 2.5 | 0.6 | 1.2 | 2.0 | 75 |
| 5 | 12 | KT315E | 1.8 | 0.25 | 2.8 | 1.5 | 60 | 14 | 12 | KT375A | 2.2 | 1.0 | 2.6 | 0.9 | 90 |
| 6 | 15 | KT375B | 2.5 | 0.4 | 3.2 | 0.6 | 120 | 15 | 15 | KT3102D | 2.5 | 0.25 | 3.4 | 1.5 | 120 |
| 7 | 9 | KT3102V | 3.3 | 1.1 | 1.8 | 2.2 | 75 | 16 | 9 | KT355A | 1.8 | 0.75 | 1.5 | 1.0 | 60 |
| 8 | 12 | KT373B | 2.2 | 0.2 | 2.5 | 1.2 | 80 | 17 | 12 | KT368B | 2.3 | 0.5 | 2.8 | 1.2 | 80 |
| 9 | 15 | KT3102A | 1.5 | 0.33 | 3.3 | 1.8 | 100 | 18 | 15 | KT315Z | 1.5 | 1.0 | 3.3 | 0.8 | 130 |

**ПРИЛОЖЕНИЕ 3.2.**

Таблица 3.1. Показатели работы усилителя

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | KU | UOUT(pV) | KIN | KOUT | \*RIN  [kΩ] | \*ROUT  [kΩ] | fНЧ  [Hz] | fВЧ  [kHz] | Δf  [kHz] | КНИ,  % |
| ОС - OFF | (KU0) |  |  |  |  |  |  |  |  | \*\* |
| ОС - ON | (KU.OC) |  |  |  |  |  |  |  |  | \*\*\* |

\* ̶ вычисляются по результатам измерения с использованием RSS и RH

\*\* ̶ измеряется при установке ESS, таким, чтобы uOUT ≈ uH из варианта

\*\*\* ̶ измеряется в номинальном режиме при замкнутой цепи ОС

Таблица 3.2. Линейные свойства усилителя.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ESS, мВ | 0.1 | 0.3 | 0.5 | 0.7 | 0.9 |
| uIN (node 1) |  |  |  |  |  |
| KIN (~const) |  | | | | |
| uOUT, В (node 11) |  |  |  |  |  |
| KU (ОС – OFF) |  |  |  |  |  |
| ESS, мВ |  |  |  |  |  |
| uIN (node 1) |  |  |  |  |  |
| KIN (~const) |  | | | | |
| uOUT, В (node 11) |  |  |  |  |  |
| KU (ОС – ON) |  |  |  |  |  |

Таблица 3.3. Влияние глубины ОС

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | KU.NOM | KU.OC | UOUT(pV) | RIN | ROUT | КНИ,% |
| ROC.NOM = ….. | NOM |  |  |  |  |  |
| ROC.NOM =2⋅ROC.NOM = … | 2⋅NOM |  |  |  |  |  |
| ROC.NOM =0.5⋅ROC.NOM = … | 0.5⋅NOM |  |  |  |  |  |

Таблица 3.4. Влияние разброса параметров.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Режим | № запуска | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | A | σ |
| OC - OFF | KU0(XX) |  |  |  |  |  |  |  |  |  |  |
| OC - ON | ROC.NOM = ….. |  |  |  |  |  |  |  |  |  |  |
| ROC.NOM =2⋅ROC.NOM = … |  |  |  |  |  |  |  |  |  |  |
| ROC.NOM =0.5⋅ROC.NOM = … |  |  |  |  |  |  |  |  |  |  |



Рис.П3.1. Семейство осциллограмм uOUT при возрастании uIN.

(a) – семейство для uIN, (b) – семейство для uOUT.

 Рис.П3.2. Семейство АЧХ и осциллограмм uOUT при разбросе параметров 10%.