P1.

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Figure 1(a,b,c) all depict the CE amplifier.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Vb | Vc | Ve | Ib | Ic | Ie | Gm | Re | R(pi) |
| 4.57 V | 4.65 V | 3.90 V | 5.5 uA | 0.83 mA | 0.83 mA | 31 ms | 31.1 Ω | 4.7 k Ω |

Table P1. Quiescent voltages and currents and AC parameters of the transistor circuits of Figure 1.

P2.

Diagram, schematic

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|  |  |  |  |
| --- | --- | --- | --- |
| Avo | Av | Ri | Ro |
| -5.03 | -5.09 | 294.3 kΩ | 1.9 kΩ |

Table P2. Parameter of CE amplifier of Figure 2.

P3.

Diagram, schematic

Description automatically generated

Multisim design used and simulated.

Chart, histogram

Description automatically generated

Graph P3. Simulation results of above multisim design.

P4.

Diagram, schematic

Description automatically generated

Diagram, schematic

Description automatically generated

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