

P65AU Open Loop Simulation 02.04.2010 by Achim Dassow
 Transistors 2N3904 are similar to original 2N3707
 Q1 Q2 assumed to be high Beta Types like 2N5089 but 2N3904 give same performance
 PNP Transistor assumed to be like 2N3906, no Datasheet found for Original
 Due to probably different Cbc values internal frequency compensation might not be set properly
 Trimpot set to 20K18 for zero Offset
 Measured Co Value: 100pF

P65AU_low-beta_first_stage

Cursor 1

V(out)

Freq: 5.00492Hz Mag: -7.85593dB Phase: -2.19836° Group Delay: 1.21895ms

Cursor 2

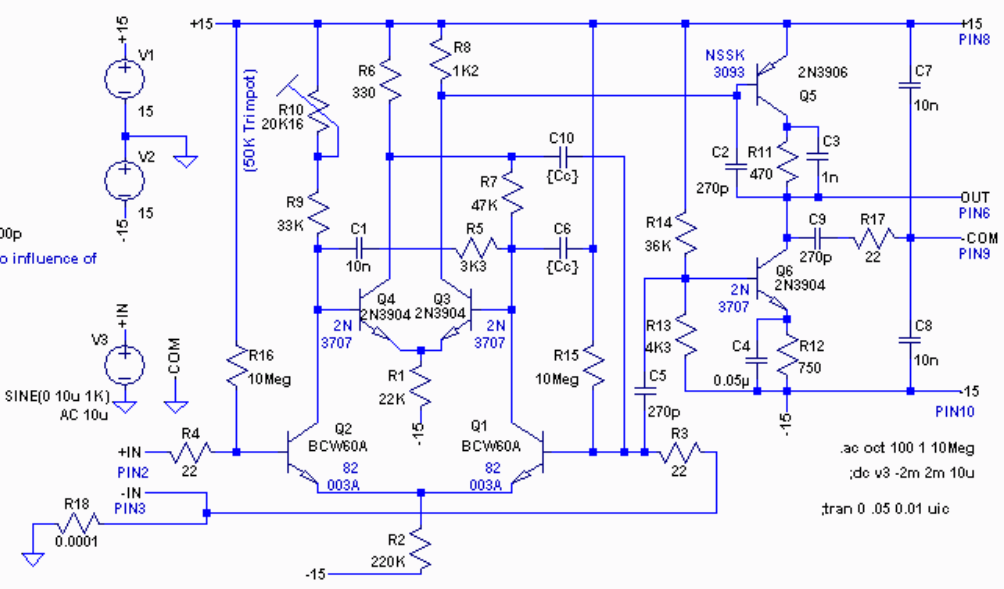
V(+in)

Freq: 5.00492Hz Mag: -100dB Phase: 0° Group Delay: 0s

Ratio (Cursor2 / Cursor1)

Freq: 0Hz Mag: -92.1441dB Phase: 2.19836° Group Delay: -1.21895ms

.step param Co list 10p 100p
 (executed .step Command shows no influence of Co value .)





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 Due to probably different Cbc values internal frequency compensation might not be set properly
 Trimpot set to 20K16 for zero Offset
 Measured Co Value: 100pF

P65AU_high-beta_first_stage

Cursor 1
 V(out)
 Freq: 5.00492Hz Mag: 26.7058dB
 Phase: -3.22876°
 Group Delay: 1.79098ms

Cursor 2
 V(+in)
 Freq: 5.00492Hz Mag: -100dB
 Phase: 0°
 Group Delay: 0s

Ratio [Cursor2 / Cursor1]
 Freq: 0Hz Mag: -126.706dB
 Phase: 3.22876°
 Group Delay: -1.79098ms

.step param Co list 10p 100p
 (executed .step Command shows very little influence of Co value except on Ic(Q6).
 The Ic(Q6) dip at 1MHz corresponds to Co=100pF)

