

MICROELECTRONIC CIRCUIT DESIGN

Second Edition Errata

Page 2, last sentence: 10% of \$40 trillion is \$4 trillion.

Page 204, Fig. 4.22(d): The drawing is incorrect — contact openings are missing and miss alignment occurred due to a computer composition error.

Page 205, Fig. 4.23: The drawing is incorrect — contact openings are missing and miss alignment occurred due to a computer composition error.

Page 229, Figs. 4.36(a) and (b): Source and drain labels, S and D, are reversed.

Page 261: Table 4.7 should be Table 4.6

Page 265: Table 4.8 should be Table 4.7

Page 810: The words low-pass should not appear above Fig. 12.6(b).

Page 1270, Fig.16.96 — A connection dot is missing on M_{GG}

Page 1343, Eq. 17.155: R_{O1} should be R_{o1}

Page 1344, Eq. 17.157: R_{O2} should be R_{o2} and 54.2 should be 54.2k Ω

Page 1363, Eq. 17.200: $V_O(t)$ should be $v_o(t)$

Page 1395, Eq. 18.36: $A_{tr} = \frac{y_{21}^A}{y_{21}^A y_{12}^F - (G_I + y_{11}^T)(y_{22}^T + G_L)}$

Problems

15.45 Use the Fourier analysis mode instead of distortion analysis in SPICE.

15.47 $v_{ic} = 5$ V exceeds the common-mode input range of the amplifier.

Use $R_C = 240$ k Ω .

15.55 Use the Fourier analysis mode instead of distortion analysis in SPICE.

15.67 Use the Fourier analysis mode instead of distortion analysis in SPICE.

15.70 Use the Fourier analysis mode instead of distortion analysis in SPICE.

15.139 Problem should refer to Fig. 15.57

15.140 Problem should refer to Fig. 15.58(a) - Use $I_S = I_B = 2$ mA and $R_B = 600$ Ω .

15.141 Problem should refer to Fig. 15.56(a)

15.142 Problem should refer to Fig. 15.56(b)

16.3 Problem should refer to Fig. 15.16(a)

- 16.7 Problem should refer to Fig. 15.16(b)
- 16.22 Use $\beta_{FO} = 50$ and $V_A = 60$ V.
- 16.49 The problem should refer to Figs. 16.19 and 16.22.
- 16.59 Use $\beta_o = 100$, $V_A = 60$ V
- 16.60 Use $\beta_o = 100$, $V_A = 60$ V
- 16.64 Problem should refer to Fig. 16.82.
- 16.93 at 280K? At 300K?
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- 17.19 $R_S = 6.8$ k Ω
- 17.20 $R_S = 10$ k Ω
- 17.39 Change the polynomial to $s^6 + 142s^5 + 4757s^4 + 58230s^3 + 256950s^2 + 398000s + 300000$
- 17.45 Use $V_{DD} = 12$ V and $R_D = 10$ k Ω .
- 17.93 $R_C = 600$ Ω
- 18.18 R_O should be R_o , and R_{ID} should be R_{id}
- 18.22 R_S should be R_I
- 18.34 form \rightarrow for
- 18.38 output across r_{o2} .
- 18.52 (a) Use the values in Problem 18.15
(b) Use the values in Problem 18.30
(c) Use the values in Problem 18.33
(d) Use the values in Problem 18.21
- 18.101 Reference to Prob. 18.91 should be 18.100