

## Technically Significant Errata for *Principles of Electronics*

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- Cover page 2: Add pin numbers 1-3 from bottom to top of TO5 package.  
Add pin 3 indication to case of TO3 package.
- Cover page 3: Interchange OUTPUT B and OFFSET B labels on 747 dual op amp symbol.
- Page xvii: At 11.5.4, change "World-" to "Word-".
- Page 12, Fig. 1.7: Current arrow on lower branch should point left.
- Page 20, Eq 1.32: In second eq, change " $V_A$ " to " $V_B$ ".
- Page 42, Fig 2.5a:  
last line: Reverse direction of current arrow.  
 $d^2/dt^2$  should be  $d^2q/dt^2$ .
- Page 60, Ex 2.4: Last eq. for  $i$  should have units A, not mA.
- Page 69, Eq 2.109: Change  $h$  to  $r$ .
- Page 73, Eq 2.115: Change  $v_d$  to  $v_{cd}$ .
- Page 79, Prob. 11: Change two figure references to 2.4a and 2.4c.
- Page 90, Fig 3.4c,d: Note that the slopes as drawn are incorrect and do not match the labels.
- Page 103, Fig 3.10: Change bottom " $> 0$ " to " $< 0$ ".
- Page 106, Ex 3.2: Change " $2\sqrt{L/C}$ " to " $2\sqrt{2L/C}$ " and the real part of both poles to -1.
- Page 107, Paragraph 2: The first two sentences define the term "dominant-pole" but the term doesn't appear here.
- Page 110, Eq 3.60 and 3.61: Interchange subscripts "low" and "high".
- Page 111, Fig 3.15c: In caption, change  $L$  to  $L_1$  and  $H$  to  $L_2$ .
- Page 116, Fig 3.17: X axis label on three right side figures should be  $/r$ .
- Page 119, Fig 3.20: Change labels on vertical elements to  $R/2$  and  $2C$ .

- Page 126, Prob 14: Change P13.14 to P3.14.
- Page 127, Prob 21 and 24: Change "+ j" to "± j".
- Page 128, Prob 28: Change Eq. (3.74) to Eq. (3.78).
- Page 135, 7th line: Change " the mutual inductance" to  $M^2$ .
- Page 135, Eq. 420 Second equation should read  $v_2 = .$
- Page 138, after Eq 4.33: Change Eq. (4.28) to Eq. (4.26)  
Eq 4.34: Change  $Z_L$  in first expression to  $Z_L$ .
- Page 140, Fig 4.6d: Replace  $Z_{in} = Z_1/Z_2$  with  $Z_{in} = Z_1 Z_2 / (Z_1 + Z_2)$ .
- Page 142, Ex. 4.1: Last expression in first equation should be  $n^2 / (j \omega C)$
- Page 145, Fig 4.8d: Replace  $M^2$  with  $n^2$ .
- Page 168, Eq 5.11: Change - to + in denominator.
- Page 177, Fig 5.19c: Reverse direction of current / arrow.
- Page 178, Fig 5.20: Add series diode pointing from C<sub>1</sub>-diode node to C<sub>2</sub>.
- Page 180, Fig 5.21a: Move  $V_2$  line up to match top of  $V_1$  sine wave.
- Page 185, Fig 5.24c: Add "(c) Typical input and output voltage signals."
- Page 185, Prob 1: Answer should read  $2 \times 10^{-12}$ .  
Prob 2: Replace " $16 \times 10^{12}$ " with " $6 \times 10^{-11}$ ".
- Page 201, Ex. 6.1: Remove "volts" from the last sentence.
- Page 203, last sentence of second paragraph: Change " $i_C \ll$ " to " $|i_C| \ll$ ".
- Page 203, text under 6.2.6: Change two figure references from 6.8b to 6.8c.
- Page 205, Eq. 6.29: Should read  $V_C = V_{CC}(1 - h_{FE}R_C/R_B)$
- Page 206, third eq from bottom of page: Change  $V_{CC}$  to  $V_C$  in numerator after  $I_B$ .
- Page 209, second equation from bottom of page: Change  $R_{FE}$  to  $h_{FE}$  in numerator.
- Page 216, Fig 6.16b: Replace caption to read "The equivalent circuit of the input loop."

- Page 229, last text line before 6.8.2 heading: Replace " $V_{GS}$ " with " $V_{GS} = 0$ ".
- Page 237, Eq. 6.96: Voltage difference in the first term should be " $(v_G - v_D)$ ".  
Eq. 6.97: Change sign from "+1" to "-1".
- Page 251, Fig P6.18: Change " $h_{FE} = 1w$ " to " $h_{FE} = 100$ ".  
Prob 19: Replace "6.12" with "P6.13".
- Page 258, Fig 7.2b: Replace "20 k " with "15 k " once on figure and three times in equations.
- Page 264, Fig 7.6a: Replace "CC" with "CD" on first occurrence only in caption.
- Page 265, second line after Sec. 7.5: Change Figure 7.6b to 7.6c.  
last line this paragraph: Change " $Q_2$  is effectively" to " $Q_1$  is effectively".
- Page 273, 2nd line: Change "DC part)" to "DC part  $V = V_3 = V_4$ ".
- Page 282, Fig 7.20: Change "C" to " $C_1$ " near center of figure.
- Page 283, 9th line in para 4: "dominate" should be "dominant".
- Page 284, Fig P7.6: Label the emitter output of last transistor with "E".  
Prob 6b: Change " $R_B$ " to "the 5 k resistor".
- Page 285, Prob 11: Interchange words "Sziklai" and "Darlington".  
Fig P7.11: Output transistor should be a PNP oriented as on Figure P7.6.
- Page 287, Prob 20b: Change " $V_{out}$ " to " $v_{out}$ ".
- Page 288, 7 lines from bottom: "dominate-pole" should be "dominant-pole"
- Page 289, Eq 8.2: Change " $A_0$ " to " $\mathbf{A}_0$ ".
- Page 303, Second eq: Add "-" inside open parenthesis.
- Page 309, Fig 8.15: Add ground symbols to the bottom line of both figures.
- Page 342, Prob 19: Change figure reference to 8.18b.
- Page 343, Prob 23: Change Figure P8.23b to Figure P8.23
- Page 344, Prob 29: Change last two figure references to 7.11a and 7.20.
- Page 361, Eq 9.26: Top bar should be broken in center.  
Eq 9.27: Broken bar should be continuous.

- Page 370, Fig 9.14b,c: All overbars should be broken between adjacent letters as in (a).
- Page 371, 4th line in para 2: double bar over D should be single bar.
- Page 379, 2nd para: Change " $V_{++}$ " to " $V_{CC}$ " and "30 V" to "+30 V".
- Page 383, Fig 9.23a: Change "2 " to "2 k ".
- Page 389, Fig 9.27a: Change "S" to " $S_C$ " and "R" to " $R_C$ " as in Fig 9.26b.
- Page 398, Fig 9.36b: Add arrows to right end of upper and lower curved lines.
- Page 401, Fig 9.38b: Three flip flops should be labeled A, B, C not C, B, A.
- Page 417, Fig 10.5b: Remove four open-dots from triangle driver symbols.
- Page 436, Fig 10.20a: Extend the "Threshold" pin 6 line to the left and connect it to the  $V_C$  line. Also place an inverting circle on the amplifier output driving pin 3.
- Fig 10.20b: Relabel  $V_{output}$  as  $V_Q$  and remove  $V_{++}$  symbol.
- Page 438, Fig 10.21: Remove five open-dots from input of OR symbol.
- Page 466, 5th para: Change "Figure 9.37b" to "Figure 9.37a".
- Page 482/3, Fig 11.13: The last sentence of caption on page 483 refers to Figure 11.13a.
- Page 506, after 12.11: Change " $1/2$  " to " $d /2$  ".
- Page 511, Fig 12.4e: Exponent should be negative in  $f$  and  $F$  equations.
- Page 514, 2nd line after Eq 12.28: Remove "unit-amplitude".
- Page 547, Example 13.2 and Fig 13.8: Omit both. The argument is incorrect: There is no shot noise in this circuit configuration.
- Page 569, Fig P13.13: Interchange "+" and "-" symbols on both amplifier symbols.
- Page 491, Fig 11.19b: The incident and reflected pulses on the middle waveform should extend to the reflection boundary.
- Page 595, Fig 14.55: Change " $n = 1$ " to " $n = 0, 1$ ".
- Page 614, 4th line: Change "7.9b" and "7.9c" to "6.9b" and "6.9c".
- Page 615, last para: Insert "to that" after "-A"

Page 623 index

Change "dominate pole" to "dominant-pole"  
Add pages 107, 288 and 289.

End