"Transformers and Inductors for Power Electronics Theory, Design and Applications"

Chapter 2

p. 25 Remove first = sign in equation (2.1)
p.45 15μm instead of 15 mm in three places;
replace z = 0 by z = 55 μm for Coils 1 and 2
replace z = 55 mm by z = 0 for Coils 1 and 4
Coils 1 and 2: $r_1 = a_1 = 1.15$ mm, $r_2 = a_2 = 1.75$ mm, $h_1 = h_2 = 15$ μm
$z = 15$ μm.

Coils 1 and 4: $r_1 = 2.00$ mm, $r_2 = 2.60$ mm, $h_1 = 15$ μm,
$a_1 = 2.00$ mm, $a_2 = 2.60$ mm, $h_2 = 15$ μm,
$z = 0$.
p.51 Problem 2.2: 1.0T should be 1.0 T
p.52 Problem 2.4: insert "The cross-sectional area of the solenoid is 1 cm^2"
p.52 Problem 2.5: insert "Take N=25 turns"

Chapter 3

p.79 new text
The duty cycle is chosen to ensure that the switch stress is minimized, the ratio V_o/V_i should be approximately 0.5 as shown in Figure 3.9 [5] so that for D=0.314 $N_p/N_s = a$ is

$$a = \frac{V_i}{V_o}\frac{D}{1-D} = \frac{325.3}{24}\frac{0.314}{1-0.314} = 6.2$$

p.81 replace $P_{cu_p\max} = 0.5\,\text{W}$ with $P_{cu_p\max} = (k_{up}/k_u)P_{cu} = (0.0948/0.235)(1.0) = 0.403\,\text{W}$

p.82 $$\mu_{\text{opt}} = \frac{B_{\max} l_c K_{ip}}{\mu_0\sqrt{\dfrac{P_{cu_p\max} k_{up} W_a}{\rho_w \text{MLT}}}} = \frac{(0.2)(12.4\times10^{-2})(0.4)}{(4\pi\times10^{-7})\sqrt{\dfrac{(0.403)(0.155)(2.77\times10^{-4})}{(1.72\times10^{-8})(11.3\times10^{-2})}}} = 83.5$$

$$g_{\max} = \frac{l_c}{\mu_{\min}} = \frac{(12.4\times10^{-2})}{83.5}10^3 = 1.48\,\text{mm}$$

p.84 Remove Problems 3.3 and 3.4 (they already appear in chapter 1)
p.84 Problem 3.7: change 20 kHz to 25 kHz
p.84 Problem 3.8: change 70 kHz to 60 kHz; change 620 μH to 1200 μH; change 30°C to 45°C

Chapter 4

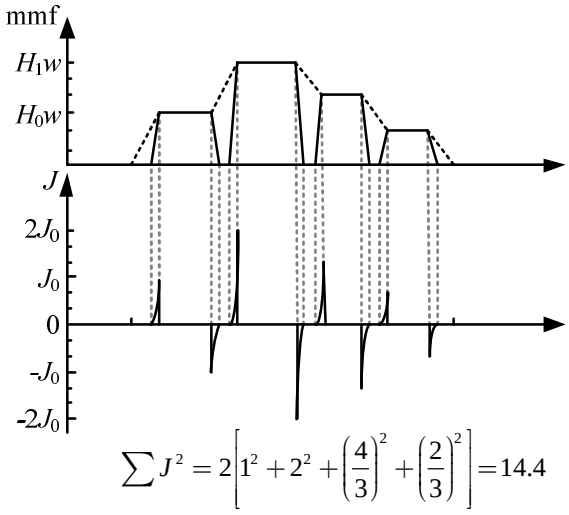
p.121 Problem 4.5: change triangular to tristate

Chapter 5

p.132 Remove (0.4) from J_o = in the numerator, it appears two times
p.138 V_{rms}/K should read V_{rms}/K_v and V_{dc} should be replaced by V_s in V_{rms} = under **Winding Design**
p.143 $I_{\text{dc}} = I_0$ should read $I_s = I_0$
p.143 change 1.5 V to 1.0 V in "assuming a forward voltage drop of 1.5 V for the diode"
p.144 In A_p = (1.0)(0.4)(48.2…) should read (1.0)(48.2…)
p.151 Problem 5.5: change 25°C to 30°C
p.152 In the MATLAB program Vw-0.28e-2 should read Vw=28e-2

Chapter 6

p.169 in Equation 6.43: $R_{dc}(NI)^2$ should read $R_{dc}I^2$
p.175 Under Figure 6.11 remove the first sentence – The plot in figure 6.9 for the pulsed waveform in Figure 6.8.
p.181 In Δ_{opt} = replace $(5p^2\text{-}1)15$ by $(5p^2\text{-}1)/15$
p.183 New version of Figure 6.16



Visio version available
p.186 in Equation 6.82: add a bracket, coth(Δ(1+j) should read coth(Δ(1+j))

Chapter 7

p.202 p.202 change 1.7 to 2.7 in two places
change 0.588 cm to 0.370 cm in two places
change 2.93 MHz to 7.39 MHz
p.204 In Equation (7.28) the limits 2π to 0 should be 0 to 2π
p.206 In ΔB = replace $2.125\text{x}10^{-4}$ by $1.125\text{x}10^{-4}$
p.206 In P_v = replace 5.56 by 3.964 and 0.198 by 0.32
p.206 In Example 7.5 first line, Example 5.3 should read Example 5.2
p. 226 Remove first = sign in Equation (2.1)

Chapter 8

p.231 Example 8.4: I_∞ = 0.53 A should read I_{oc} = 0.53 A
P_1 = 18.5 W should read P_{oc} = 18.5 W
p.244 Problem 8.2:
p.245 Table 8.4: remove columns Z(Ω) and L_{ac}(mH)
p.244 Problem 8.2: add "Take N = 700 turns on a toroidal core with A_c = 5.24 cm^2 and l_c = 33.1 cm"

Chapter 10

p.331 Example 10.9: Equation 10.55 should be Equation 10.52 in two places
p.331 Problem 10.6: Add “and adjusting the power level”

Appendix A

Add COILCRAFT http://www.coilcraft.com to the list