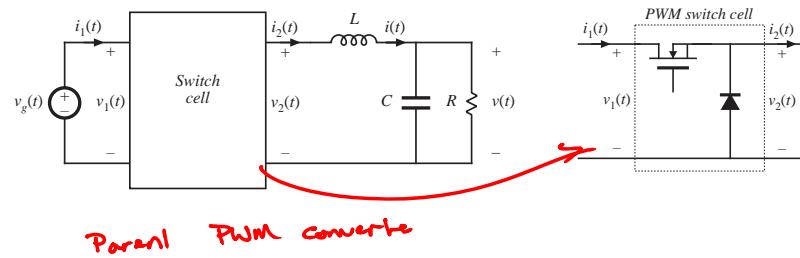
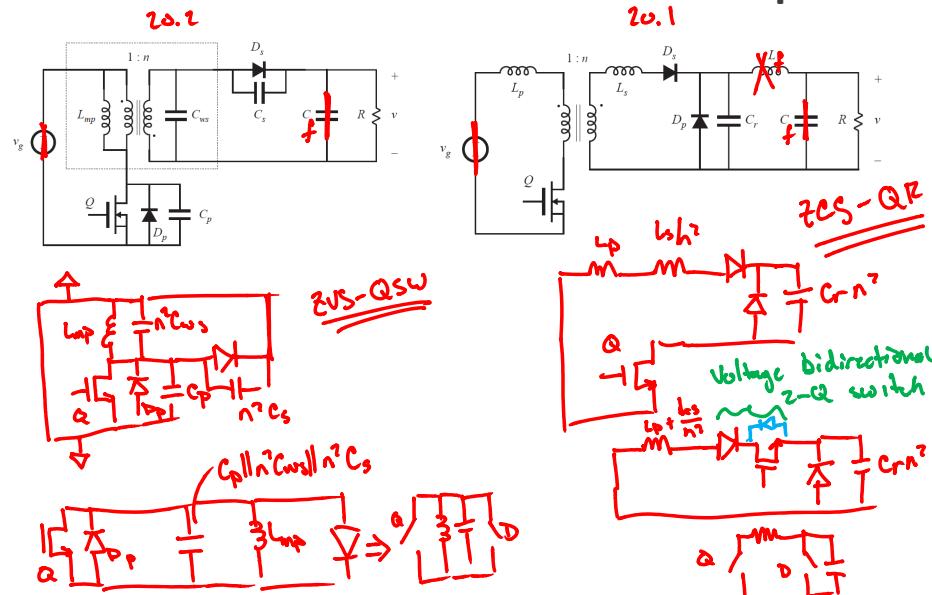


Identification of Resonant Switch



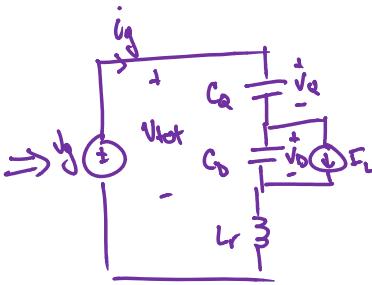
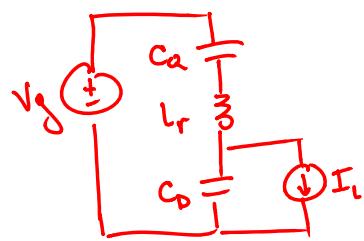
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Resonant Switch Identification Examples



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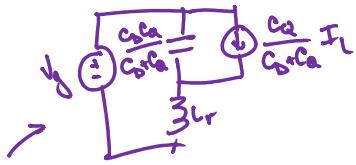
All devices off



$$V_{\text{tot}} = V_a + V_b$$

$$\frac{dV_{\text{tot}}}{dt} = \frac{i_g}{C_a} + \frac{i_g - I_L}{C_b} = \frac{C_b i_g}{C_a C_b} + \frac{C_a (i_g - I_L)}{C_a C_b} = i_g \frac{C_a + C_b}{C_a C_b} - I_L \frac{C_a}{C_a C_b}$$

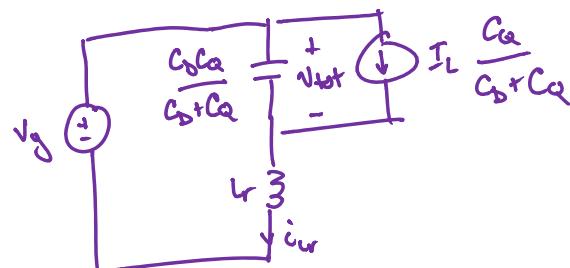
Make it look like



$$\frac{dV_{\text{tot}}}{dt} = \frac{i_g}{C_a} - I_L \frac{C_a}{C_a C_b}$$

$$\frac{dV_{\text{tot}}}{dt} = i_g \frac{C_a + C_b}{C_a C_b} - I_L \frac{C_a + C_b}{C_a C_b} \left(\frac{C_a}{C_a + C_b} \right)$$

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$$R_o = \sqrt{\frac{L_r}{C_b C_a / (C_a + C_b)}}$$

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