

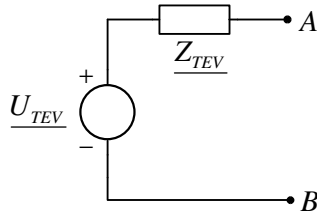
Osnovi elektronike SI

Rešenja zadataka – drugi kolokvijum 01.12.2012.

3. zadatak

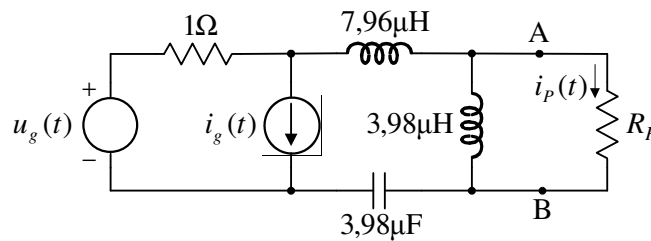
a) $Z_{TEV} = \left(\frac{1+j3}{5}\right)\Omega$

$U_{TEV} = \left(\frac{j+2}{5}\right)V$



b) $\underline{S} = \frac{1}{9} + j0$; $P = \frac{1}{9} \text{ W}$; $Q = 0 \text{ VAr}$.

c) $\underline{I}_P = \frac{1}{3}$; $i_p(t) = \frac{\sqrt{2}}{3} \cos(2\pi ft) \text{ A} = 0.471 \cos(2\pi ft) \text{ A}$



4. zadatak

$$v_I [\text{V}] = \begin{cases} 0; & 0 \leq i_G \leq 0.6 \text{ mA} \quad (D_1 - \text{OFF}, D_2 - \text{OFF}) \\ \frac{1}{2} i_G [\text{mA}] - 0.3; & 0.6 \text{ mA} \leq i_G \leq 1.8 \text{ mA} \quad (D_1 - \text{ON}, D_2 - \text{OFF}) \\ 0.6; & 1.8 \text{ mA} \leq i_G \leq 3 \text{ mA} \quad (D_1 - \text{ON}, D_2 - \text{ON}) \end{cases}$$

