ET 332b  
Single Phase Ac Circuit Analysis

The circuit below has the following component values:

\[ R_1 = 3 \, \Omega \quad X_{L1} = 5 \, \Omega \]
\[ R_2 = 10 \, \Omega \quad X_{L2} = 7 \, \Omega \quad X_C = 50 \, \Omega \]
\[ E = 240 \angle 0^\circ \]

Find the total source current \( I_T \) and the voltage between the points A and B on the diagram below. (Voltage across equivalent of all components \( R_2, X_{L2}, \) and \( X_C \).)