

$$i2 = (vz - va)j\omega C2$$

$$i3 = \frac{va - 0}{R24 + \frac{1}{j\omega C1}}$$

$$i3 = va \frac{j\omega C1}{1 + j\omega R24C1}$$

$$i4 = \frac{va - vc}{R1} \text{ où :}$$

$$vc = vb = va \frac{j\omega R24C1}{1 + j\omega R24C1}$$

$$i2 = i3 + i4 = va \frac{j\omega C1}{1 + j\omega R24C1} + \frac{va - vc}{R1}$$

$$i2 = i3 + i4 = va \frac{j\omega C1}{1 + j\omega R24C1} + \frac{va}{R1} - \frac{vc}{R1}$$

$$i2 = i3 + i4 = va \frac{j\omega C1}{1 + j\omega R24C1} + \frac{va}{R1} - \frac{va}{R1} \frac{j\omega R24C1}{1 + j\omega R24C1}$$

$$i2 = i3 + i4 = va \frac{j\omega C1}{1 + j\omega R24C1} + \frac{va}{R1} - va \frac{R24}{R1} \frac{j\omega C1}{1 + j\omega R24C1}$$

$$i2 = i3 + i4 = va \left[\left(\frac{R1 - R24}{R1} \right) \frac{j\omega C1}{1 + j\omega R24C1} + \frac{1}{R1} \right]$$

$$i2 = i3 + i4 = \frac{va}{R1} \left[\frac{j\omega (R1 - R24) C1}{1 + j\omega R24C1} + 1 \right]$$

$$i2 = i3 + i4 = \frac{va}{R1} \left[\frac{j\omega (R1 - R24) C1 + (1 + j\omega R24C1)}{1 + j\omega R24C1} \right]$$

$$i2 = i3 + i4 = \frac{va}{R1} \left[\frac{(1 + j\omega R1C1)}{1 + j\omega R24C1} \right]$$

$$\frac{va}{i2} = R1 \frac{(1 + j\omega R24C1)}{(1 + j\omega R1C1)}$$

$$\frac{vz}{i2} = R1 \frac{(1 + j\omega R24C1)}{(1 + j\omega R1C1)} + \frac{1}{j\omega C2}$$

