

Resistencia total

$$R_t = R_1 + R_L$$

$$R_t = 1\text{ k}\Omega + 2.2\text{ k}\Omega$$

$$R_t = 3.2\text{ k}\Omega$$

Corriente total

$$I = \frac{V}{R} = \frac{10}{3.2}$$

$$I = 3.125\text{ mA}$$

Voltaje Pico ( $R_L$ )

$$V_P = I \cdot R_L$$

$$= (3.125) \cdot (2.2)$$

$$= 6.875\text{ V}$$

Voltaje rms

$$V_{rms} = \frac{\sqrt{2}}{2} \cdot V_P (R_L)$$

$$= \frac{\sqrt{2}}{2} \cdot 6.875\text{ V}$$

$$= 4.86\text{ V}$$

Calculando velocidad angular

$$f = 2500\text{ Hz}$$

$$\omega = 2\pi (2500)$$

$$\omega = 5000\pi \frac{\text{rad}}{\text{s}}$$

Calculando el Periodo

$$T = \frac{1}{f}$$

$$T = \frac{1}{2500}$$

$$T = 0.0004\text{ s}$$

error Voltaje pico

$$\epsilon = \frac{6.875 - 6.48}{6.875} (100) = 0.36\%$$

Error voltaje rms

$$\epsilon = \frac{4.861 - 4.832}{4.861} (100) = 0.78\%$$