$$\frac{1}{Z_{TOTAL}} = \frac{\left(R_2 + \frac{1}{jwC_2}\right) + \left(\frac{1}{jwC_p}\right)}{\left(R_2 + \frac{1}{j\underbrace{(2\pi f)}_{w}(C_2)}\right) * \left(\frac{1}{jwC_p}\right)}$$

$$\boxed{Z_{TOTAL} = \frac{\left(R_2 + \frac{1}{jwC_2}\right)\left(\frac{1}{jwC_p}\right)}{\left(R_2 + \frac{1}{jwC_2}\right) + \left(\frac{1}{jwC_p}\right)}}$$

Case 1: HIGH FREQ ($w \uparrow$)

$$Z_{TOTAL} = \frac{(R2 + 0)(0)}{(R2 + 0) + 0}$$

$$\boxed{Z_{TOTAL} = \frac{0}{R2} = 0}$$

$\therefore$ when $f \uparrow$ $\boxed{Z_{TOTAL} \downarrow}$

Case 2: LOW FREQ ($w \downarrow$)

$$Z_{TOTAL} = \frac{(R2 + \infty)(\infty)}{(R_2 + \infty) + \infty}$$

$\boxed{Z_{TOTAL} = \infty}$ when $f \downarrow$

$\therefore$ Zobel network acts as Low pass filter.

$$I_{(Z_s)} = \frac{V_{out}}{Z_s}$$

$$I_{(Z_s)} = \frac{V_{out}}{\sqrt{(R_2)^2 + \left(\frac{1}{wC_2}\right)^2}}$$

$I = \frac{V}{}$

when $w \uparrow$	when $w \downarrow$
$I_{(Z_s)} = \frac{V_{out}}{R_2}$	$I_{(Z_s)} = 0$

$$I_{(C_p)} = \frac{V_{out}}{Z_{(C_p)}}$$

$$I_{(C_p)} = \frac{V_{out}}{\frac{1}{jwC_p}} = \frac{V_{out}}{\frac{1}{wC_p}}$$

when $w \uparrow$	when $w \downarrow$
$I_{(C_p)} = \infty$	$I_{(C_p)} = 0$

THIS MEANS PIEZO ACTS LIKE SHORT CIRCUIT (WIRE) WITH HIGH FREQ.