

Adding Surface 3

$$\phi = \phi_{12} + \phi_3 - \phi_{12} \phi_3 \tau_{12-3}$$

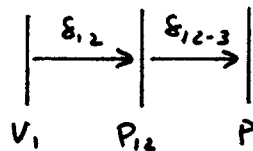
$$\phi = .0596/\text{mm}$$

$$f_e = 1/\phi = 16.78 \text{ mm}$$

$$f_F = -n_0/\phi = -16.78 \text{ mm}$$

$$f_R' = n_3/\phi = 22.41 \text{ mm}$$

$$\delta_{12-3} = \frac{\phi_3}{\phi} \tau_{12-3} = 1.05 \text{ mm}$$



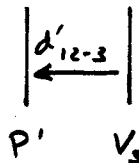
$$n_0 = 1.0$$

$$d = \delta = V_1 P = \delta_{12} + \delta_{12-3} = 1.47 \text{ mm}$$

$$\delta'_{12-3} = -\frac{\phi_{12}}{\phi} \tau_{12-3} = -4.081 \text{ mm}$$

$$d' = d'_{12-3} = n_3 \delta'_{12-3} = -5.45 \text{ mm}$$

$$n_3 = 1.336$$



$$d' = V_3 P' = -5.45 \text{ mm}$$

$$\text{Since } t_1 + t_2 = 7.20 \text{ mm}$$

$$V_1 P' = 1.75 \text{ mm} \quad (\text{to the right of } V_1)$$

Nodal Points.

$$PN = f'_R + f_F = 22.41 - 16.78 = 5.63 \text{ mm}$$

$$P'N' = PN = 5.63 \text{ mm}$$

Summary

$$\phi = .0596 / \text{mm}$$

$$f_e = 16.78 \text{ mm}$$

$$f_F = -16.78 \text{ mm}$$

$$f'_R = 22.41 \text{ mm}$$

$$d = 1.47 \text{ mm}$$

$$PP' = .28 \text{ mm}$$

$$d' = -5.45 \text{ mm}$$

$$d' \neq d \text{ since } n_3 \neq 1.0$$

$$PN = P'N' = 5.63 \text{ mm}$$

$$V_1 F = f_F + d = -15.31 \text{ mm}$$

$$V_3 F' = f'_R + d' = 16.96 \text{ mm}$$

