

$$V' = \epsilon \vec{V}$$

$$(\vec{V}_b' - \vec{V}_a') \cdot \vec{n} = -\epsilon (\vec{V}_b - \vec{V}_a) \cdot \vec{n}$$

$$\frac{J}{m} = \Delta V$$

$$J = j \vec{n}$$

$$\vec{V}_a' = \vec{V}_a - \frac{j \vec{n}}{mass_a}$$

$$\vec{V}_b' = \vec{V}_b + \frac{j \vec{n}}{mass_b}$$

$$(\vec{V}_b + \frac{j \vec{n}}{mass_b} - (\vec{V}_a - \frac{j \vec{n}}{mass_a})) \cdot \vec{n} = -\epsilon (\vec{V}_b - \vec{V}_a) \cdot \vec{n}$$

$$(\vec{V}_b + \frac{j \vec{n}}{mass_b} - \vec{V}_a + \frac{j \vec{n}}{mass_a}) \cdot \vec{n} + \epsilon (\vec{V}_b - \vec{V}_a) \cdot \vec{n} = 0$$

$$(\vec{V}_b - \vec{V}_a + \frac{j \vec{n}}{mass_b} + \frac{j \vec{n}}{mass_a}) \cdot \vec{n} + \epsilon (\vec{V}_b - \vec{V}_a) \cdot \vec{n} = 0$$

$$(\vec{V}_b - \vec{V}_a) \cdot \vec{n} + (\frac{j \vec{n}}{mass_b} + \frac{j \vec{n}}{mass_a}) \cdot \vec{n} + \epsilon (\vec{V}_b - \vec{V}_a) \cdot \vec{n} = 0$$

$$\vec{n} \cdot \vec{n} = 1$$

$$(\vec{V}_b - \vec{V}_a) \cdot \vec{n} + j (\frac{1}{mass_b} + \frac{1}{mass_a}) + \epsilon (\vec{V}_b - \vec{V}_a) \cdot \vec{n} = 0$$

$$(1 + \epsilon) (\vec{V}_b - \vec{V}_a) \cdot \vec{n} + j (\frac{1}{mass_b} + \frac{1}{mass_a}) = 0$$

$$j (\frac{1}{mass_b} + \frac{1}{mass_a}) = -(1 + \epsilon) (\vec{V}_b - \vec{V}_a) \cdot \vec{n}$$

$$j = \frac{-(1 + \epsilon) (\vec{V}_b - \vec{V}_a) \cdot \vec{n}}{(\frac{1}{mass_b} + \frac{1}{mass_a})}$$