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From Chasmar and Stratton (1959)

Starting From

$$Z = \theta^2\sigma/\kappa$$

Using

$$\kappa_n = L_n T\sigma = \Delta(k/e)^2 T\sigma$$

$$\theta = (k/e)(\eta - \delta)$$

$$\sigma = \sigma_0 \epsilon(\eta)$$

$$\kappa = \kappa_L + \kappa_n$$

$$Z = (k/e)^2(\eta-\delta)^2\sigma/\kappa_L + \kappa_n$$

$$= (k/e)^2(\eta-\delta)^2\sigma/[\kappa_L + \Delta(k/e)^2 T\sigma]$$

$$= \frac{(k/e)^2(\eta-\delta)^2\sigma}{(k/e)^2 T\sigma} \cdot \frac{1}{\kappa_L/\beta(k/e)^2 T\sigma + \Delta}$$

$$Z = \frac{(\eta-\delta)^2}{T} \cdot \frac{1}{1/\beta\epsilon + \Delta}$$

Let $\beta = (k/e)^2 T\sigma_0/\kappa_L$

$$ZT = (\eta-\delta)^2/(\frac{1}{\beta\epsilon} + \Delta)$$