A capacitor is constructed from two concentric cylinders. The inner cylinder has radius $a$ and carries charge/length $\lambda$. The outer cylinder has radius $c$ carries charge/length $-\lambda$. The region $a \leq r < b$ is filled with a dielectric $\epsilon_1$ and the region $b \leq r \leq c$ is filled with a dielectric $\epsilon_2$. Determine the capacitance.