$$
\begin{aligned}
&\epsilon_n^{-\frac{\alpha}{2}} \int_0^{\theta t} \gamma_1 \left(\epsilon_n^{-\frac{1}{2}} (B^j_{0,t}(t-s) - B^k_{0,t}(t-s)) + \epsilon_n^{-\frac{1}{2}} \frac{s}{t}(z-z') \right) ds \\
&\leq \epsilon_n^{-\frac{\alpha}{2}} \theta t \gamma_1(0) \\
&\leq \frac{\rho}{2} \epsilon_n^{-\frac{\alpha}{2}} \int_0^t \gamma_1 \left(\epsilon_n^{-\frac{1}{2}} (B^j_{0,t}(t-s) - B^k_{0,t}(t-s)) \right) ds \\
&= \frac{\rho}{2} \int_0^t \gamma_{\epsilon_n} \left(B^j_{0,t}(t-s) - B^k_{0,t}(t-s) \right) ds \,.
\end{aligned}
$$