Abstract:
In this paper, we report an experimental evidence of the impact of applied a low magnetic field (B <; 10 mT) during negative bias temperature instability (NBTI) stress and recovery, on commercial power double diffused MOS transistor. We show that both interface (ANit) and oxide trap (ANot) induced by NBTI stress are reduced by applying the magnetic field. This reducing is more pronounced as the magnetic field is high. However, the dynamic of interface trap during stress and recovery phase is not affected by the applied magnetic field. While, the dynamic of oxide trap is affected in both stress and recovery phases.