The paper reports on a study of the emission of GaN/AlN self-assembled quantum dots grown on *a*-plane 6H-SiC showing evidence of the suppression of the internal electric field. The strain in dots and barriers is determined by means of Raman scattering and the induced piezoelectric polarizations are estimated. These reveal a compensation of the spontaneous polarization and justify the lack of a quantum confined Stark effect found in the photoluminescence spectra. Strain effects and strong confinement are responsible for the partial depolarization of the emission and its energy dependence.