Abstract： The P(VDF/TrFE) (VDF/TrFE=72/28, PIEZOTECH, France) films were prepared by casting a methvethvlketone (MEK) solution on glass substrate and polarized by using different methods. The surface potential decay of P(VDF/TrFE) films as a function of polarizing temperature was measured. Mean charge depths including space and dipole charges along the thickness of the films were investigated by thermal pulse technique. The remanent polarization in P(VDF/TrFE) was stabilized by trapping space charges on or near the free surface in a double-layered film. The influence of space charge layer near the free surface on the remanent polarization was studied by means of isothermal surface potential decay measurement and TSD (Thermally Stimulated Discharge) experiment.