The purpose of this study is to investigate the stability of freely supported FGM sandwich conical shells subjected to the axial load within the first order shear deformation theory (FOSDT). The basic equations of FGM sandwich conical shells are displayed based on the Donnell shell theory. Galerkin's method is utilized to convert the partial differential equations to algebraically equations. The novelty of this study is to achieve closed-form solution for the critical axial load of FGM sandwich conical shells within the FOSDT. The parameter which is included in the obtained expressions is get from the minimum conditions of the critical axial load. The results obtained in this study compared with other studies and get good agreement. Emphasis is placed on studying the influences of FGM layers and transverse shear stresses on the magnitudes of the critical axial load for FGM sandwich conical shells with different geometrical dimensions.