

SEMICONDUCTOR CONTACT METALLIZATION

ABSTRACT

A method for fabricating an improved connection between active device regions in silicon, to an overlying metallization level, has been developed. The method produces contacts with superior and improved barrier integrity, which permits silicon device exposure to extended thermal process times and/or higher temperature processes without metal penetration into the silicon contact junction regions. The critical element is the addition of a conformal CVD tungsten layer in the multilayer barrier structure.

(FIGURE 1 IS SUGGESTED FOR PUBLICATION)