

HYBRID EMTTER ALL BACK CONTACT SOLAR CELL

ABSTRACT OF THE DISCLOSURE

An all back contact solar cell has a hybrid emitter design. The solar cell has a thin dielectric layer formed on a backside surface of a single crystalline silicon substrate. One emitter of the solar cell is made of doped polycrystalline silicon that is formed on the thin dielectric layer. The other emitter of the solar cell is formed in the single crystalline silicon substrate and is made of doped single crystalline silicon. The solar cell includes contact holes that allow metal contacts to connect to corresponding emitters.

Fig. 8