

리본 두께에 따른 태양전지 Bowing현상 연구

A Study on Bow of Silicon Solar Cell by Soldering Different Thickness of Ribbon

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Abstract : To reduce PV manufacturing costs, the thickness of solar cell is getting thinner. Bow is shown after cooling down the temperature of solder cell. It happens because of different thermal expansion coefficients of different metals. Bowed cell can make micro crack while module processing and it can drop off efficiency of PV module. As thinner solar cell is produced, the thickness of ribbon should be concerned to prevent extra bow. In this paper we investigate the contrast of deflection when we solder different thickness of ribbons on same solar cell. This approach would help to find out the optimal thickness of ribbon for particular thickness of solar cell later on.

Key Words : Bow, Ribbon thickness, Soldering

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