

ABSTRACT

PHOTOVOLTAIC CELL AND PHOTOVOLTAIC MODULE

A photovoltaic cell is provided, including a substrate having a front surface with metal pattern regions and a rear surface, first pyramid structures in each metal pattern region, platform protrusion structures on the rear surface, a first tunneling layer and a first doped conductive layer on a portion of the front surface in a respective metal pattern region, and a second tunneling layer and a second doped conductive layer on the rear surface. A height of each first pyramid structure is greater than that of each platform protrusion structure. A one-dimensional dimension of a bottom portion of each first pyramid structure is less than that of each platform protrusion structure. A doping element type of the first doped conductive layer is the same as that of the substrate. A doping element type of the second doped conductive layer is different from that of the first doped conductive layer.

Figure 1