

ABSTRACT

Disclosed is a solar cell which is provided with: a
5 semiconductor substrate having a light-receiving surface and
a non-light-receiving surface; a PN junction section formed
on the semiconductor substrate; a passivation layer formed on
the light-receiving surface and/or the non-light-receiving
surface; and power extraction electrodes formed on the
10 light-receiving surface and the non-light-receiving surface.
The solar cell is characterized in that the passivation layer
includes an aluminum oxide film having a thickness off 40 nm
or less. As a result of forming a aluminum oxide film having
a predetermined thickness on the surface of the substrate, it
15 is possible to achieve excellent passivation performance and
excellent electrical contact between silicon and the
electrode by merely firing the conductive paste, which is
conventional technology. Furthermore, an annealing step,
which has been necessary to achieve the passivation effects
20 of the aluminum oxide film in the past, can be eliminated,
thus dramatically reducing costs.