9. The method of claim 1, further comprising the step of forming a lightly doped silicon layer between the doped silicon layer and the silicon film.

10. A method of fabricating a solar cell comprising the steps of:
forming a sacrificial layer on a top surface of a silicon substrate;
processing an exposed surface of the sacrificial layer to form a textured surface;
forming a heavily doped silicon layer atop the textured surface of the sacrificial layer;
forming a lesser doped silicon layer atop the heavily doped silicon layer;
epitaxially growing a silicon film atop the lesser doped silicon layer;
forming alternating P-type and N-type doped regions over the silicon film;
contacting each of the P-type and N-type doped regions with a metal contact;
bonding a back side of the solar cell to a carrier;
separating the heavily doped silicon layer from the silicon substrate by removing the sacrificial layer;
debonding the solar cell from the carrier; and
forming an anti-reflective coating over the heavily doped silicon layer.

11. The method of claim 10, wherein epitaxially growing the silicon film comprises epitaxially growing a silicon wafer less than 100 micrometers thick.

12. The method of claim 10, wherein forming the heavily doped silicon layer comprises forming a silicon layer of less than 2 micrometers thick.

13. The method of claim 10, wherein the silicon substrate comprises a plurality of sacrificial layers and forming the sacrificial layer comprises doping a top surface of the silicon substrate to form a doped sacrificial layer.

14. The method of claim 10, wherein the sacrificial layer is deposited on the top surface of the silicon substrate using a CVD process.

15. The method of claim 10, wherein forming the lesser doped silicon layer comprises driving dopants from the heavily doped silicon layer into the lesser doped silicon layer.

~~16. A solar cell fabricated by the method of claim 10.~~