CLAIMS

What is claimed is:

1. A photovoltaic laminate comprising:

a first solar cell;

a first continuous metal layer with a first plurality of contact fingers, a second plurality of contact fingers, and an interconnect, the interconnect of the first continuous metal layer being between the first plurality of contact fingers and the second plurality of contact fingers of the first continuous metal layer; and

a second continuous metal layer forming a first plurality of contact fingers, a second plurality of contact fingers, and an interconnect, the interconnect of the second continuous metal layer being between the first plurality of contact fingers and the second plurality of contact fingers of the second continuous metal layer, the first plurality of contact fingers of the second continuous metal layer being interdigitated with the first plurality of contact fingers of the first continuous metal layer on a backside of the first solar cell.

2. The photovoltaic laminate of claim 1, further comprising:

a second solar cell; and

a third continuous metal layer with a first plurality of contact fingers, a second plurality of contact fingers, and an interconnect, the interconnect of the third continuous metal layer being between the first plurality of contact fingers and the second plurality of contact fingers of the third continuous metal layer,

wherein the second plurality of contact fingers of the second continuous metal layer is interdigitated with the first plurality of contact fingers of the third continuous metal layer on a backside of the second solar cell.

3. The photovoltaic laminate of claim 1, wherein the first plurality of contact fingers of the first continuous metal layer are connected to a P-type diffusion region of the first solar cell and the first plurality of contact fingers of the second continuous metal layer are connected to an N-type diffusion region of the first solar cell.

4. The photovoltaic laminate of claim 1, further comprising:

a first encapsulant on a front side of the first solar cell; and

a transparent layer on the first encapsulant on the front side of the first solar cell.

5. The photovoltaic laminate of claim 4, wherein a plurality of metal bonds couple the first plurality of contact fingers of the first continuous metal layer to the first solar cell.

6. The photovoltaic laminate of claim 4, further comprising:

a backing material on the first and second continuous metal layers on the backside of the first solar cell.

7. The photovoltaic laminate of claim 6, further comprising:

a second encapsulant between the backing material and the first and second continuous metal layers on the backside of the first solar cell.

8. A photovoltaic laminate comprising:

a first solar cell;

a first contact finger having a first end on a backside of the solar cell;

a second contact finger having a first end on the backside of the solar cell; and

a third contact finger having a first end on the backside of the solar cell, wherein the first end of the first contact finger, the first end of the second contact finger, and the first end of the third contact finger are alternately arranged on the backside of the first solar cell.

9. The photovoltaic laminate of claim 8, further comprising:

a second solar cell, wherein a second end of the first contact finger, a second end of the second contact finger, and a second end of the third contact finger are alternately arranged on a backside of the second solar cell.

10. The photovoltaic laminate of claim 8, wherein the first end of the first contact finger is connected to a P-type diffusion region of the first solar cell and the first end of the second contact finger is connected to an N-type diffusion region of the first solar cell.

11. The photovoltaic laminate of claim 8, further comprising:

a first encapsulant on a front side of the first solar cell; and

a transparent layer on the first encapsulant on the front side of the first solar cell.

12. The photovoltaic laminate of claim 11, wherein a plurality of metal bonds couple the first end of the first contact finger to the first solar cell.

13. The photovoltaic laminate of claim 11, further comprising:

a backing material on the first, second, and third contact fingers on the backside of the first solar cell.

14. The photovoltaic laminate of claim 13, further comprising:

a second encapsulant between the backing material and the first, second, and third contact fingers on the backside of the first solar cell.

15. A photovoltaic laminate comprising:

a first solar cell;

a first continuous metal layer comprising a first bus bar and a first plurality of contact fingers, the first bus bar and the first plurality of contact fingers being coupled to a backside of the first solar cell by a first plurality of metal bonds; and

a second continuous metal layer comprising a second bus bar and a second plurality of contact fingers, the second bus bar and the second plurality of contact fingers being coupled to the backside of the first solar cell by a second plurality of metal bonds.

16. The photovoltaic laminate of claim 15, further comprising:

a first encapsulant on a front side of the first solar cell; and

a transparent layer on the first encapsulant on the front side of the first solar cell.

17. The photovoltaic laminate of claim 16, further comprising:

a backing material on the first and second continuous metal layers on the backside of the first solar cell.

18. The photovoltaic laminate of claim 17, further comprising:

a second encapsulant between the backing material and the first and second continuous metal layers on the backside of the first solar cell.

19. The photovoltaic laminate of claim 15, wherein the first plurality of contact fingers are interdigitated with the second plurality of contact fingers.

20. The photovoltaic laminate of claim 15, further comprising:

a second solar cell that is connected to the first solar cell.