CLAIMS

What is claimed is:

1. A semiconductor device comprising:

a semiconductor substrate;

a first transistor and a second transistor formed on said semiconductor substrate;

each of said transistors comprising a source, a drain, and a gate;

a CA layer electrically connected to at least one of said source or said drain of said first transistor; and

a CB layer electrically connected to at least one of said gates of said transistors and said CA layer.

2. A semiconductor device as set forth in claim 1 wherein said CB layer is electrically connected to both of said gates of said transistors.

3. A semiconductor device as set forth in claim 1 wherein said CA layer extends between a first end and a second end and wherein said CB layer is disposed at a center between said ends of said CA layer.

4. A semiconductor device as set forth in claim 1 wherein said CA layer extends between a first end and a second end and wherein said CB layer is disposed adjacent one of said ends of said CA layer.

5. A semiconductor device as set forth in claim 1 further comprising a trench silicide layer sandwiched between said CA layer and said at least one of said source or said drain of said first transistor to electrically connect said CA layer and said at least one of said source or said drain of said first transistor.

6. A semiconductor device as set forth in claim 1 wherein said CA layer and CB layer each comprise tungsten.

7. A semiconductor device as set forth in claim 1 wherein said CA layer and CB layer each comprise copper.

8. A semiconductor device as set forth in claim 1 further comprising a metal layer disposed above said CA layer and said CB layer with respect to said substrate.

9. A semiconductor device as set forth in claim 8 further comprising at least one via electrically connecting at least one of said CA layer and said CB layer to said metal layer.

10. A semiconductor device comprising:

a semiconductor substrate;

a first transistor, a second transistor, and a third transistor formed on said substrate and disposed sequentially from said first transistor through said third transistor;

each of said transistors comprising a source, a drain, and a gate;

a first CB layer electrically connected to said gate of said first transistor;

a second CB layer electrically connecting said gate of said third transistor; and

a CA layer electrically connecting said first CB layer and said second CB layer and electrically insulated from said gate of said second transistor.

11. A semiconductor device as set forth in claim 10 wherein said CA layer is electrically connected to one of said source or said drain of one of said transistors.

12. A semiconductor device as set forth in claim 10 further comprising a fourth transistor comprising a source, a drain, and a gate formed on said substrate wherein said transistors are disposed sequentially from said first transistor through said fourth transistor.

13. A semiconductor device as set forth in claim 12 wherein said second CB layer is electrically connected to said gate of said fourth transistor.

14. A semiconductor device as set forth in claim 10 wherein said CA layer and said CB layers are disposed above said gates of said transistors with respect to said substrate.

15. A semiconductor device as set forth in claim 14 further comprising a metal layer disposed above at least one of said CA layers and said CB layer with respect to said substrate.

16. A semiconductor device as set forth in claim 15 further comprising at least one via electrically connecting said metal layer to at least one of said at least one CA layer and said CB layer.

17. A semiconductor device as set forth in claim 10 wherein said CA layer and said CB layers comprise tungsten.

Claims

1. A semiconductor device comprising:

a semiconductor substrate;

a first transistor and a second transistor formed on said semiconductor substrate;

each of said transistors comprising a source, a drain, and a gate;

a CA layer electrically connected to at least one of said source or said drain of said first transistor; and

a CB layer electrically connected to both of said gates of said transistors and said CA layer.

2. A semiconductor device as set forth in claim 1 wherein said CA layer extends between a first end and a second end and wherein said CB layer is disposed at a center between said ends of said CA layer.

3. A semiconductor device as set forth in claim 1 wherein said CA layer extends between a first end and a second end and wherein said CB layer is disposed adjacent one of said ends of said CA layer.

4. A semiconductor device as set forth in claim 1 further comprising a trench silicide layer sandwiched between said CA layer and said at least one of said source or said drain of said first transistor to electrically connect said CA layer and said at least one of said source or said drain of said first transistor.

5. A semiconductor device as set forth in claim 1 wherein said CA layer and CB layer each comprise tungsten.

6. A semiconductor device as set forth in claim 1 wherein said CA layer and CB layer each comprise copper.

7. A semiconductor device as set forth in claim 1 further comprising a metal layer disposed above said CA layer and said CB layer with respect to said substrate.

8. A semiconductor device as set forth in claim 8 further comprising at least one via electrically connecting at least one of said CA layer and said CB layer to said metal layer.

9. A semiconductor device comprising:

a semiconductor substrate;

a first transistor, a second transistor, and a third transistor formed on said substrate and disposed sequentially from said first transistor through said third transistor;

each of said transistors comprising a source, a drain, and a gate;

a first CB layer electrically connected to said gate of said first transistor;

a second CB layer electrically connecting said gate of said third transistor; and

a CA layer electrically connecting said first CB layer and said second CB layer and electrically insulated from said gate of said second transistor.

10. A semiconductor device as set forth in claim 10 wherein said CA layer is electrically connected to one of said source or said drain of one of said transistors.

11. A semiconductor device as set forth in claim 10 further comprising a fourth transistor comprising a source, a drain, and a gate formed on said substrate wherein said transistors are disposed sequentially from said first transistor through said fourth transistor.

12. A semiconductor device as set forth in claim 12 wherein said second CB layer is electrically connected to said gate of said fourth transistor.

13. A semiconductor device as set forth in claim 10 wherein said CA layer and said CB layers are disposed above said gates of said transistors with respect to said substrate.

14. A semiconductor device as set forth in claim 14 further comprising a metal layer disposed above at least one of said CA layers and said CB layer with respect to said substrate.

15. A semiconductor device as set forth in claim 15 further comprising at least one via electrically connecting said metal layer to at least one of said at least one CA layer and said CB layer.

16. A semiconductor device as set forth in claim 10 wherein said CA layer and said CB layers comprise tungsten.