What is claimed is:

1. A double-sided mounting board comprising a single-crystal silicon carbide substrate, comprising,

at a micropipe defect inner-wall surface portion which is a crystallographic defect that occurs in a manufacturing stage for the double-sided mounting board,

a multi-layer film structure including

first wiring film material that is inflow from a first wiring film formed as a thin film on a first component side of the single-crystal silicon carbide substrate,

second wiring film material that is inflow from a second wiring film formed as a thin film on a second component side that is the side opposite to the first component side, and

insulating film material that is inflow from an insulating film formed as a thin film on the second component side, the insulating film material serving as an intermediate layer between the first wiring film material and the second wiring film material to prevent electrical connection between the first wiring film material and the second wiring film material.

2. The double-sided mounting board according to claim 1, comprising

a layered structure including, at least,

the first wiring film formed on the lowermost surface on the first component side,

the insulating film formed on the lowermost surface on the second component side, and

the second wiring film formed as an upper layer on the insulating film on the second component side.

3. The double-sided mounting board according to claim 1, wherein

each of the first wiring film and the second wiring film is constituted of a layered structure including a titanium layer as a lowermost layer and a platinum layer and a gold layer in this order as upper layers on the titanium layer, the titanium, platinum, and gold layers being formed by an electron-beam vapor-deposition film-formation method or a resistance-heating vapor-deposition film-formation method.

4. The double-sided mounting board according to claim 1, wherein each of the first wiring film and the second wiring film is constituted of a layered structure including a titanium layer as a lowermost layer and a cupper layer as an upper layer on the titanium layer, the titanium and cupper layers being formed by an electron-beam vapor-deposition film-formation method or a resistance-heating vapor-deposition film-formation method.

5. The double-sided mounting board according to claim 1, wherein the insulating film material is a silicon oxide and is formed by a sputtering film-formation method or an ion-plating film-formation method in which the insulating film material is more likely to flow into the micropipe defect inner-wall surface portion than in an electron-beam vapor-deposition film-formation method or a resistance-heating vapor-deposition film-formation method.

6. A method of manufacturing a double-sided mounting board comprising a single-crystal silicon carbide substrate, comprising:

a first step of forming a first wiring film on a first component side of the single-crystal silicon carbide substrate;

a second step of forming an insulating film on a second component side that is the side opposite to the first component side; and

a third step of forming a second wiring film on the second component side, wherein

at a micropipe defect inner-wall surface portion which is a crystallographic defect that occurs in a manufacturing stage for the double-sided mounting board,

insulating film material that is inflow from the insulating film serves as an intermediate layer between first wiring film material that is inflow from the first wiring film formed on the first component side and second wiring film material that is inflow from the second wiring film formed on the second component side, so that the insulating film material prevents electrical connection between the first wiring film material and the second wiring film material.

7. The method of manufacturing a double-sided mounting board according to claim 6, wherein

each of the first wiring film and the second wiring film is a multi-layer film including a titanium layer, a platinum layer on the titanium layer, and a gold layer on the platinum layer, the titanium, platinum, and gold layers being formed by an electron-beam vapor-deposition film-formation method or a resistance-heating vapor-deposition film-formation method.

8. The method of manufacturing a double-sided mounting board according to claim 6, wherein,

the insulating film material is a silicon oxide, and the insulating film is formed by a sputtering film-formation method or an ion-plating film-formation method in which the insulating film material is more likely to flow into the micropipe defect inner-wall surface portion than in an electron-beam vapor-deposition film-formation method or a resistance-heating vapor-deposition film-formation method.

9. A semiconductor laser comprising:

the double-sided mounting board according to any one of claims 1 to 5; and

a semiconductor laser device disposed on the double-sided mounting board.