What is claimed is,

1. A heat sink unit that dissipates heat of a package, comprising a base, a cover, a first lever, a third lever, a heat sink, and a heat sink pedestal, wherein

the first lever is rotatably held by the base, carries the heat sink and the heat sink pedestal, and is hard stopped at the base by an end portion of the first lever,

the third lever is rotatably held by the cover, is connected to the first lever to open and close the same, and controls up-and-down movements of the heat sink pedestal by a tip end of the third lever, and

the heat sink is configured to press the package with timing shifted by a long hole of the third lever after the first lever is hard stopped at the base.

2. The heat sink unit according to claim 1, wherein

shaking of the heat sink pedestal is controlled by a protrusion.

3. The heat sink unit according to claim 1, wherein

displacement of the first lever is controlled by a protrusion.

4. The heat sink unit according to any one of claims 1 to 3, wherein

the third lever has a connecting portion and a first support portion interlocking with opening/closing operations, and

the third lever is fixed and connected to the first lever with a screw passing through the heat sink and a coil spring.

5. The heat sink unit according to claim 4, wherein

the heat sink is provided with a coil spring.

6. The heat sink unit according to claim 5, wherein

the heat sink unit is configured to press the heat sink horizontally against the package while maintaining the heat sink pedestal in a horizontal attitude when the third lever is actuated.

7. The heat sink unit according to claim 6, wherein

the heat sink unit is configured to support the heat sink pedestal by a first support portion of the third lever in order to prevent the heat sink from being lowered and vigorously contacting the package due to an impact when the heat sink is closed.

8. The heat sink unit according to claim 7, wherein

the heat sink unit is configured to support the heat sink pedestal by the first lever in order to prevent the heat sink from rotating or shaking and contacting the package due to an impact generated during operation of closing the heat sink.

9. The heat sink unit according to claim 8, wherein

the heat sink unit is configured to provisionally position a position of the heat sink by the end portion of the first lever and an opening of the cover, and finally position the position of the heat sink by the base during the operation of closing the heat sink.

10. The heat sink unit according to claim 9, comprising a second lever rotatably held by the cover, wherein the second lever is connected to the first lever at a tip end portion of the second lever and pressed and fixed to the base, wherein

the second lever has a third connecting portion and a fourth connecting portion for pressing and fixing the first lever to the base.

11. The heat sink unit according to claim 8, wherein

when there is no pressing position in a center of the package, in order to prevent a pressing portion of the heat sink from obliquely contacting a pressing position of the package, a coil spring for balance is provided above the pressing position inside the heat sink.

12. The heat sink unit according to claim 11, comprising a shaft that holds the coil spring for balance, wherein

the heat sink pedestal or the first lever is provided with a plurality of shaft fixing holes for fixing the shaft.

13. The heat sink unit according to claim 12, wherein

an end portion of the first lever is provided with an abutting surface that abuts against a shaft supported by the cover when the first lever is closed to suppress rebound of the first lever, and the first lever is locked so as to not be opened when the cover reaches the final position after rising.

14. The heat sink unit according to claim 13, wherein

a torsional coil spring is provided between the base and the first lever to soften the impact when the first lever is closed.

15. The heat sink unit according to claim 10, wherein

a coil spring is provided between the first lever and the base to weaken the rising momentum of the cover and to soften the impact when the first lever is closed.

16. The heat sink unit according to claim 15, wherein

a coil spring is provided between the cover and the base to weaken the rising momentum of the cover and to soften the impact when the first lever is closed.

17. An IC socket, wherein a heat sink unit according to any one of claims 1 to 16 is incorporated in a socket main body of the IC socket.

18. A manufacturing method of semiconductor package, comprising:

a semiconductor assembling process of assembling a semiconductor package by applying an external connection terminal, a protective covering, etc., to a semiconductor element;

a first sorting process of sorting out the semiconductor package in which defects are generated by the semiconductor assembling process;

a screening process of discriminating good/defective by applying thermal load or electrical load to the semiconductor package judged to be a good product through the first sorting process;

a second sorting process of sorting out the semiconductor package which is judged to be defective by the screening process; and

a shipping process of shipping the semiconductor package which is judged to be a good product by the screening process, wherein

in the screening process, an IC socket to which the semiconductor package is detachably attached is mounted on a predetermined circuit board, and the heat sink socket according to claim 1 is detachably attached to the IC socket.