TOSHIBA SiN Insulating Circuit Substrates (SiN-AMB Substrates)



Excellent heat dissipation and strength

This product is an insulation and heat dissipation substrate with copper circuit, for mounting semiconductor chips in the power module. It is a high reliability substrate that has excellent heat cycle resistance and difficult to crack even after repeated use.

Point 1

High reliability (high heat cycle resistance)

Silicon nitride ceramics have excellent heat cycle resistance.

It is difficult to crack even if exposed to thermal expansion and contraction under repeated use.



Point 2

High heat dissipation by thick copper and thin SIN

Making use of excellent mechanical properties of silicon nitride ceramics, bonding of thick copper and thinning of SIN are possible. It contributes to reduction in thermal resistance and inductance.



Point 3

Possible to apply US(ultra sonic) welding

This product possible to withstand the pressure and vibration of US bonding, which has been widely used in recent years. It eliminates the need for solder directly under the Cu electrode, thus improving productivity and the reliability of bonding to the front Cu plate.



Toshiba Materials Co., Ltd.