

ABSTRACT

A benzoxazole resin precursor comprising a first repeating unit which is obtained by the reaction of a bisaminophenol compound and a dicarboxylic acid compound, at least one of which has the diamondoid structure; a benzoxazole resin precursor further comprising a second repeating unit which is obtained by the reaction of a bisaminophenol compound having no diamondoid structure and a dicarboxylic acid compound having no diamondoid structure; a polybenzoxazole resin obtained by the ring-closing reaction with dehydration of the above benzoxazole resin precursor; a resin film constituted with the benzoxazole resin precursor or the polybenzoxazole resin. A polybenzoxazole resin and a resin film having excellent heat resistance and a small permittivity and a semiconductor device using the resin film can be obtained from the benzoxazole resin precursor.