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(54) JOINT BODY OF GLASS-CERAMIC AND ALUMINUM NITRIDE SINTERED COMPACT AND METHOD FOR PRODUCING THE SAME

(57) A compact size, low electric resistance and high heat-spreading electric circuit substrate, which is suitable for an electric circuit used at microwave of 1 GHz or more as used in the field of wireless communication such as portable telephones or optical communication, is provided.

A jointed body of glass-ceramic with aluminum nitride sintered bodiesaid glass-ceramic containing crystals having the strongest line in the range of $2\theta = 27.6^{\circ}$ - 28.2° in powder X-ray diffraction using CuK α line, e.

g., anorthite crystals, and having a composition containing 0.5 - 30 mass% of Zn component in terms of oxide, not more than 10 mass% in total of Ti component and Zr component in terms of corresponding oxides and not more than 5 mass% of Pb component in terms of oxide. Said jointed body is prepared by forming a layer of amorphous glass of above composition on an aluminum nitride sintered body, and thereafter heating the composite at temperatures not lower than the softening point of said amorphous glass, e.g., 600 - 1100°C, and concurrently crystallizing the same by said heating.

Fig. 20

