

Title (en)
CERAMIC MICROWAVE FREQUENCY WINDOW

Title (de)
KERAMISCHES MIKROWELLENFENSTER

Title (fr)
FENETRE HYPERFREQUENCE EN CERAMIQUE

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Application
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Abstract (en)
[origin: FR2821487A1] The invention relates to microwave frequency windows that are used for vacuum sealing and for the passage of electromagnetic energy exiting a powerful microwave tube. The window comprises a dielectric disc (30) and a preload ring (40) which is placed around the periphery of the disc and which, when not in use, exerts a radial compressive stress around the disc. In practice, the disc is soldered inside a metal skirt (10), and the preload ring (40) is an annular portion of a holding block (20) that fixes the microwave frequency window rigidly to an outlet of the microwave tube. The annular portion is provided with a reinforced thickness and is supported locally on the skirt (10) around the disc. The disc can be made from alumina, the metal skirt from copper and the holding block from stainless steel. The resistance of the window to heat stresses is considerably improved. The invention is suitable for exit windows for high-powered amplifying vacuum tubes (TWT, klystrons, etc.).

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