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Acoustic-electronic cryotron of high velocity

P. V. Nistiriuk, D. N. Tsurcanu, E. A. Beregoi, A. S. Alexei, O. S. Birzoi and K. I. Kornea

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Abstract

An acoustic-electronic cryotron of high velocity based upon YBa/sub 2/Cu/sub 3/O/sub 7/ superconductor operated by acoustic surface wave (ASW) provides for automatic switchover time period with a fixed step contemporaneously in two opposite directions: clockwise in sections I and III, and counterclockwise in sections II and IV. The ratio of switchover time period step in a cryotron operated by ASW depends on the number of contacts, ASW frequency and contact distribution configuration. Results of a high velocity acoustic-electronic cryotron development with automatic switchover time period are presented.