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The research low-frequency noise after electric pulse machining

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The results of investigation of low-frequency noise drift of carbon resistors in the frequency range 5×10^{-4}–1 kHz after 108 hours of electrical pulse treatment at voltage 35 V and pulse duration 10 μs are presented. On the basis of the analysis of the obtained spectra the growth of low-frequency noise by 5 and 12 % at the bandwidth of 500 and 5 Hz was recorded, while the drift of resistance of the samples was less than 1 %. From the technological and scientific point of view, an important result was obtained, which in the future can be used to assess reliability in the study of solid-state electronic device structures.

Keywords: low frequency noise, resistance drift, carbon resistor, reliability.

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