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PROBABILISTIC PROPERTIES OF ELECTRICAL CHARACTERISTICS OF CAPACITOR CHARGE CIRCUIT WITH STOCHASTIC ACTIVE RESISTANCE

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Abstract

The approach to the determination of the probability properties (probability density function, probability distribution function, mathematical expectation) of the electrical characteristics of the circuits of electric discharge installations whose active resistance can be changed at random is proposed. It is assumed that such a stochastic resistance is characterized by a continuous random variable whose probabilistic properties are known. As an example, probabilistic

properties of the voltage on a capacitor in a first-order circuit with a stochastic active resistance having a uniform probability distribution were investigated. References 10, figures 3.

Key words: transient processes, stochastic resistance, random process, continuous probability distribution.

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