temperature is analized for the models depending on the dimension (1 - D, 2 - D or 3D-model) [13].

By means of modeling of particular transient thermography procedure may be carried out the optimization of the experiment, taking into account the possible practical limitations. After optimization of the experiment a temperature function T (i, j, τ) that is determined for each point of the object under control was prepared.

The analysis of experimental data is carried out using specialized software programs. The aim is to find fault with given statistical properties such as the probability of correct detection and probability of false alarm. If a defect is discovered it is possible to estimate its parameters by solving the inverse problem of thermal control. The control procedure ends with the drawing a carats of the defects - binary images in which, for example 1 is attached to the pixels relating to defective areas and 0 - to the pixels from the defect-free areas.

IV. CONCLUSIONS

SPT is preferred for analysis of the failure based of migration. SPT can early to detect this kind of fault and limit heating during diagnostic. The discovery of shallow cracks, delamination, short circuit, bad hermetization can be successfully evaluated with PT. Demand for deep hidden defects should be done with LIT or FMT. The choice of one or the other method will depend on the design and technology features of the electronic device, the signal/noise ratio and the observation time.

Using the methods of transient thermography provides new opportunities for analysis of failures and non-destructive diagnostics of electronic components and modules on the way to improve the quality of their production.

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