Abstracts

Network Integration Approaches for Multiple-Diode High Power Microwave Generation

M.E. Hines. "Network Integration Approaches for Multiple-Diode High Power Microwave Generation." 1968 G-MTT International Microwave Symposium Digest and Technical Program 68.1 (1968 [MWSYM]): 46-53.

Rapid strides are now being made in solid-state microwave power generation, With the recent introduction of negative-resistance avalanche junction diodes and gallium arsenide bulk-effect devices, a new impetus was given to research. This paper is an attempt to assess the present status of these devices and to look into the future. Solid-state devices are already displacing vacuum tubes for low power system functions, including transmitters for line-of sight communication links. What are the possibilities that they can also replace high power microwave tubes? Here, we attempt to assess the probability of success and to foresee some of the directions which such research may take. We point out certain special problems to be solved and present new circuit concepts which appear promising at this time.

❑ Return to main document.