Abstracts

Cooling of Avalanche Diodes (Correspondence)

J.J. Baranowski, V.J. Higgins and F.A. Brand. "Cooling of Avalanche Diodes (Correspondence)." 1967 Transactions on Microwave Theory and Techniques 15.12 (Dec. 1967 [T-MTT]): 754-755.

This correspondence presents the experimental results of cooling reverse-biased p-n junctions operating in an avalanche transit time mode, and is an extension of previous efforts where the generation and amplification of microwave energy was obtained from conventional varactor diodes. These are commercially available epitaxial GaAs and Si varactors. The diodes were originally designed for operation as either low-noise parametric amplifiers or harmonic generators. Typically, the diodes exhibit breakdown voltages in excess of 25 volts and junction capacitances less than 1 pF at zero bias.

❑ Return to main document.