Abstracts

p-i-n Diodes for Low-Frequency High-Power Switching Applications

M. Caulton, A. Rosen, P.J. Stabile and A. Gombar. "p-i-n Diodes for Low-Frequency High-Power Switching Applications." 1982 Transactions on Microwave Theory and Techniques 30.6 (Jun. 1982 [T-MTT]): 875-882.

The development of high-power low-frequency diodes, conditions for their operation, and results measured in actual circuits are described. Harmonic distortion at 500 kHz and 2 MHz has been found to decrease with increasing diode lifetime and forward-bias current. Large reverse bias voltages are necessary at low frequencies to keep the RF voltage swing from penetrating the forward conduction region. The improvement of p-i-n diode lifetimes with thicker I-layers or with planar construction has been studied and the performance of these diodes in a routing switch is reported.

❑ Return to main document.