Abstracts

Stability Criteria for Tunnel-Diode Amplifiers (Correspondence)

B. Henoch and Y. Kvaerna. "Stability Criteria for Tunnel-Diode Amplifiers (Correspondence)." 1962 Transactions on Microwave Theory and Techniques 10.5 (Sep. 1962 [T-MTT]): 397-398.

A tunnel-diode amplifier is stable when the amplifier network is reduced to ml arbitrary single loop and the equation given by the sum of the impedances around this loop equal to zero [Sigma Z(P)=0 where p=gamma + j omega] has no solution in the right-half plane (gamma > 0). This is equivalent to the requirement that the system determinant shall have no zeros in the right-half plane. Several authors have used this criterion. To determine analytically whether Sigma Z(p) has any positive zeros is very laborious if at all possible for many practical amplifier configurations.

❑ Return to main document.