Abstracts

The Junction Inductance of a Lumped-Constant Circulator (Correspondence)

J. Helszajn and M. McDermott. "The Junction Inductance of a Lumped-Constant Circulator (Correspondence)." 1970 Transactions on Microwave Theory and Techniques 18.1 (Jan. 1970 [T-MTT]): 50-52.

One form of the lumped-constant circulator consists of a mesh arrangement of three short-circuited striplines arranged at 120° which are insulated from each other. If the mesh arrangements are electrically short the energy within the disk geometry is essentially magnetic. In this correspondence the inductance associated with this magnetic energy is calculated by forming the input impedance of the mesh. Because of the geometry used the characteristic impedance and phase velocity of this transmission line are those associated with the even-mode excitation of two coupled lines. Graphical results are given for both the stripline and microstrip cases.

❑ Return to main document.