

Abstracts

The Arc Loss of Multimegawatt Gas Discharge Duplexers (1965 [MWSYM])

C.S. Ward. "The Arc Loss of Multimegawatt Gas Discharge Duplexers (1965 [MWSYM])." 1965 G-MTT Symposium Program and Digest 65.1 (1965 [MWSYM]): 205-210.

The arc loss of multimegawatt microwave gas discharge duplexers is the subject of this paper. It is shown that the discharge at these power levels can be considered as a lossy conductor of freed surface area and varying thickness, given by the skin depth which varies with peak incident power. Since the skin depth is always smaller than the discharge container dimensions, the analysis is greatly simplified as compared with other treatments. These small skin depths are always realized in multimegawatt switching applications.

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