normal component of electric field over a contour surrounding one of the conductors. Many cross sections have points on the conducting boundary where the potential gradient is singular, and special treatment such as a series of circular harmonics is required to obtain accurate results for the normal derivative near such points. Duncan [6] relates the accuracy of the finite-difference approximation for the electric field at corners or edges of conductor boundaries to the lattice constant a, the magnitude of the lattice point residuals, and the particular finite-difference operator used. It is best to choose a contour of integration not directly on the conductor boundary to avoid errors due to singularities when computing capacitance. If the integration must be performed on the conductor boundary itself, as in the determination of conduction loss, special consideration must be given to regions near field singularities, as indicated by Duncan.

Sinnott [8] has used an interpolation method to improve finite-difference solutions for capacitance; it involves calculating the energy associated with a continuous potential function properly fitted. This method leads to an upper bound for the capacitance, and the accuracy is shown to depend upon the particular potential function used. A method is described for interpolating a suitable potential function, including a scheme for interpolation in the vicinity of a field singularity.

These conclusions are unaltered in the cases of the inhomogeneous media considered in the previous sections.

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Correction to "Microstrip High-Power High-Efficiency Avalanche-Diode Oscillator"[1]

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The abscissa scale of Fig. 6 should have read: 0.090, 0.095, 0.100, 0.105, etc., instead of 0.009, 0.095, 0.010, 0.0105, etc.

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