Abstracts

Improved Approximations for the Fringing and Shielded Slab-Line Capacitances

Given the dimensions w/(b - t) and t/b for the slab-line geometry or the dimensions s/b and t/b
for the fringing capacitance geometry, it is shown how the capacitances associated with each
geometry can be determined accurately from new explicit expressions rather than by a
computerized search. The two expansions for the nome q', in terms of the dimensions, which
are essential for the calculations, are identical except for signs. Finally, comparisons are made
with values of the capacitances obtained by a computerized search.

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