Abstracts

Contact Effects on HF Loss of CPW High Resistivity Silicon Lines

Z.R. Hu, V.F. Fusco, Y. Wu, H.G. Gamble, B.M. Armstrong and J.A.C. Stewart. "Contact Effects on HF Loss of CPW High Resistivity Silicon Lines." 1996 MTT-S International Microwave Symposium Digest 96.1 (1996 Vol. I [MWSYM]): 299-302.

This paper shows that the HF losses of CPW lines realized on 5-10 KLlcm HRS (High Resistivity Silicon) substrates are strongly affected by the derivative of the I-V curves, ie. HF losses are higher where the I- V charactetistic changes most rapidly. As a result the excess HF loss due to choice of quiescent bids voltage can be as high as 0.3-0.4 dB/cm. The implication of the effect is that by proper de biasing of a CPW line on HRS substrate minimum HF loss can be achieved. This is of importance when active devices are to be biased through line interconnects.

❑ Return to main document.