Abstracts

Tunnel Diode Burnout from the Video Transient of Gaseous (Correspondence)

C. Blake and W.J. Ince. "Tunnel Diode Burnout from the Video Transient of Gaseous (Correspondence)." 1962 Transactions on Microwave Theory and Techniques 10.1 (Jan. 1962 [T-MTT]): 88-88.

The helix-coupled, coaxial, gaseous noise source poses a burnout hazard to tunnel diodes unless certain precautions are taken. The attached oscillograms illustrate the transient in question. Typical short-circuit peak currents are 300 ma. The transient is a consequence of the sudden forced transition of the helix core from a nonconducting, unionized gaseous media to that of a conducting plasma. The transient coupled to the helix is easily suppressed with a high-pass or band-pass filter, or even by adequate padding. If only a pad is used, a word of warning is in order. The pad must be of the type that attenuates video, as well as radio, frequency.

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