Abstracts

Self Activated, 20 kW X-Band Bulk Effect Semiconductor Limiter

G. Morris, V. Higgins, G. Hall, Y. Anand, R. Bilotta and F. Jellison. "Self Activated, 20 kW X-Band Bulk Effect Semiconductor Limiter." 1979 MTT-S International Microwave Symposium Digest 79.1 (1979 [MWSYM]): 243-248.

A self activated solid-state X-band multi-stage receiver protector using a high power bulk semiconductor limiter followed by a two-stage junction diode limiter has been developed for military radar applications. The receiver protector handles 20 kW of peak power at a 0.25 µ sec pulse width and 4000 Hz pulse repetition frequency. Spike and flat leakage powers are less than 250 mW and 50 mW respectively. High volume semiconductor batch processes and fabrication techniques were implemented to obtain this low cost, yet reliable receiver protector. In addition the bulk limiter concept has been successfully applied to millimeter wave frequency.

❑ Return to main document.

Click on title for a complete paper.