

Abstracts

Pulsed and CW Double-Drift Silicon IMPATTs

G. Pfund, C. Snapp and A. Podell. "Pulsed and CW Double-Drift Silicon IMPATTs." 1974 S-MTT International Microwave Symposium Digest of Technical Papers 74.1 (1974 [MWSYM]): 312-314.

The properties of double-drift Si IMPATTs designed for both pulsed and CW operation at frequencies between 8 and 18 GHz are discussed. Peak pulse powers greater than 18 watts at 10 GHz and 13.5 watts at 16.5 GHz were obtained for 800 nsec pulses at a 25% duty cycle with the junction temperature rise limited to 200°C. For a similar temperature rise a CW power of 3.4 watts at 11.5 GHz was achieved. Conversion efficiencies were between 10.5 and 13.7%.

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