ACTIVE SOLID STATE MICROWAVE DEVICE PERFORMANCE

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Abstract

There is now a wide variety of solid state devices available for use as oscillators and/or amplifiers in microwave systems. Figure 1 illustrates this variety. The choice for a specific application is based on a number of performance factors, some of which are listed in Table I. In this paper we shall explore relative device performance with the objective of providing the potential user with a basis for choosing the best device for his application.

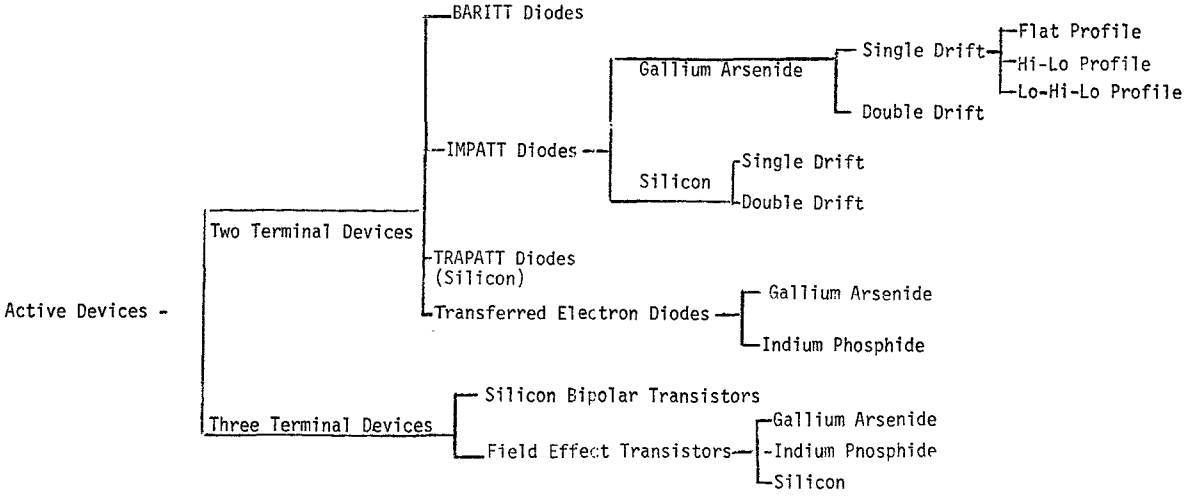

Figure 1

ACTIVE SOLID STATE MICROWAVE DEVICES

PERFORMANCE FACTORS EFFECTING CHOICE OF SOLID STATE MICROWAVE DEVICES FOR SPECIFIC APPLICATIONS

Frequency (Bandwidth, Tunability)
Power
Efficiency
Stability (Voltage, Temperature, Shock, Vibration, etc.)
Noise
Power Supply Requirements
Size
Weight
Format
Reliability
Cost

TABLE I