Law of Mass action -The troduct of majority and minority carrier concentration in an extension semiconductor at a particular temperature is equal to the square of intrinsic carrier concentration at that temperature i.e. n.p = n: 3 oI = I where, A n = Concentration of electrons P = concentration of holes and hi = Intrinsic carrier concentration For +-type semiconductor material np. Pp = 1/2 3 rot 2 = For n-type semiconductor material -(YT) indicates debendence of the convert on temperatural and Ut for a given diods at temperefure T is calculated as, Vy = KT / Velts

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