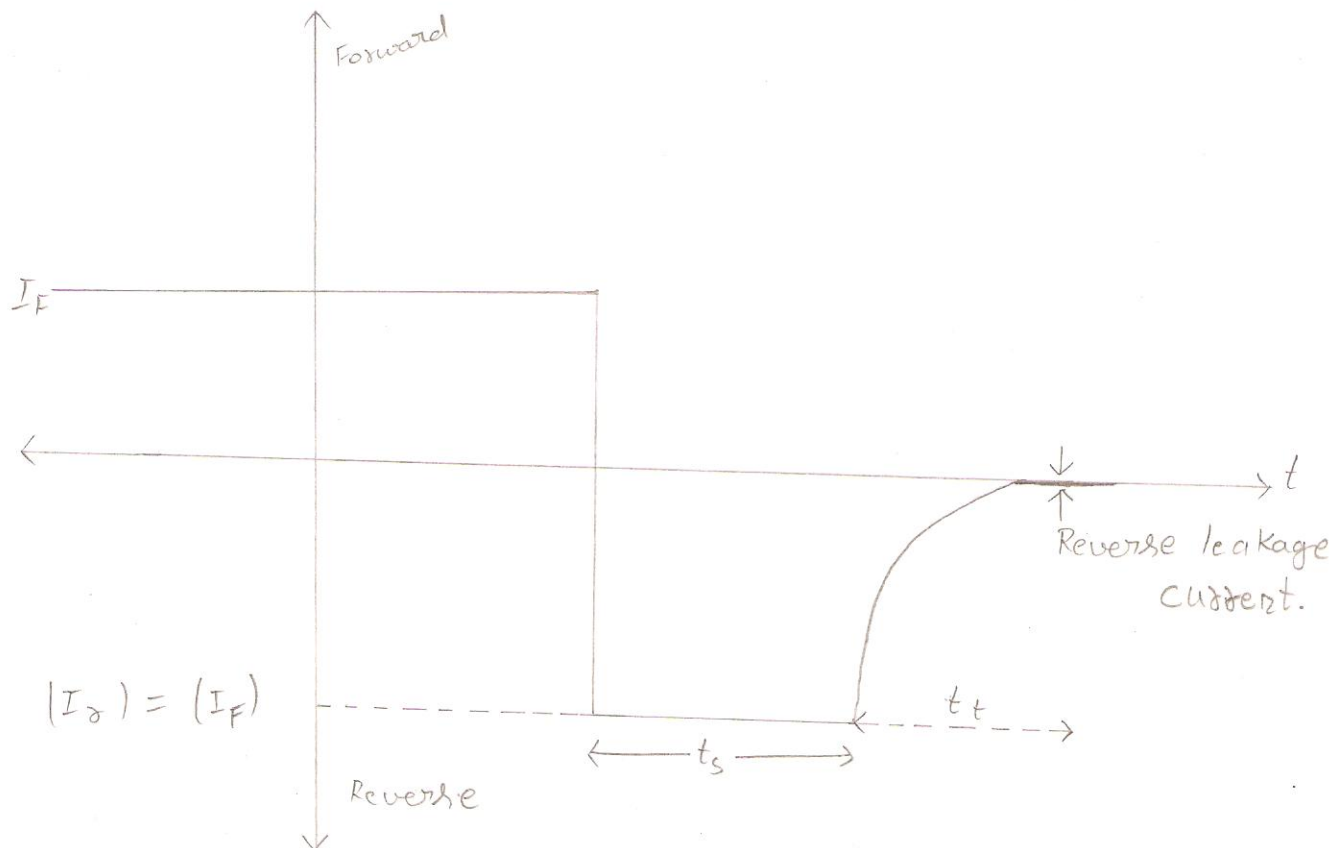


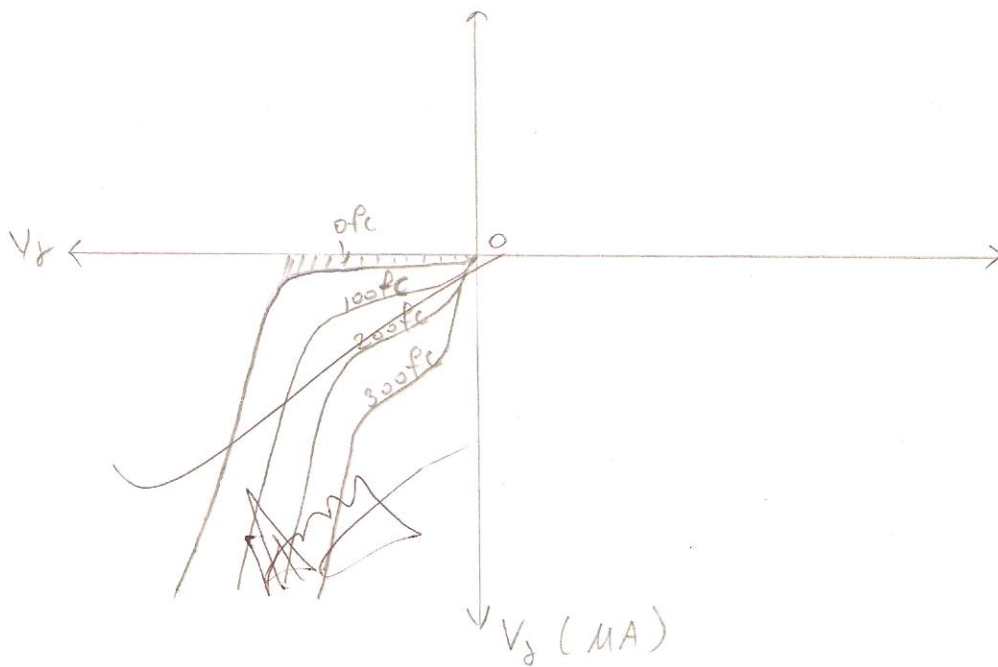
Que-7 What is reverse recovery time?

Ans → The figure below shows that what happens when the diode bias is switch from forward to reverse. At the switching time current reverse and stays at a const. level for a period of time called the storage time (t_s). During this time the diode acts as a short circuit. Then the current decreases to the reverse leakage current value. This latter time is called the transition time. The sum of storage and transition time is the reverse recovery time. It depends on the forward current and data sheets on the forward current and data sheet gives the reverse recovery time along with the test condition. The external voltage suppose to change suddenly, the outstanding feature is the reverse recovery. But after (t_s) seconds the current decays with some time const. (t_f) and reaches the small static reverse current of the junction.



$$t_{rr} = t_s + t_t$$

Que-4 (d) Photo diode: →



fc - foot candles

$$1fc = 1.6 \times 10^{-19}$$