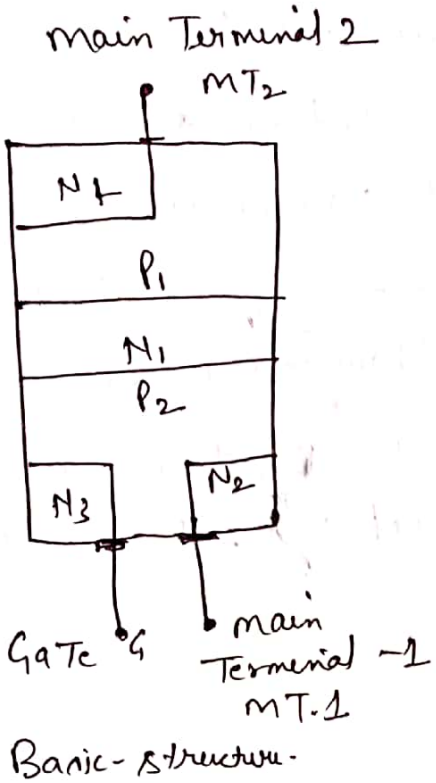
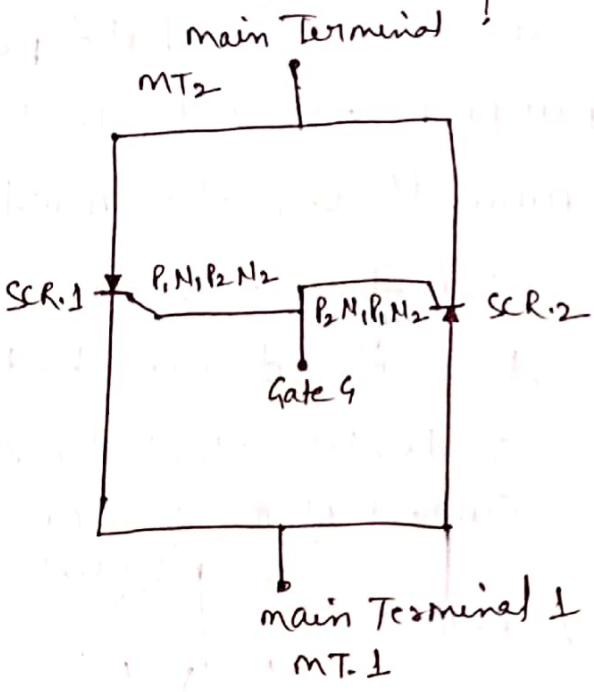
Ques.2:→ Explain working and construction of TRIAC? Draw and explain VI characteristic of TRIAC?

Ans:→



Basic structure.



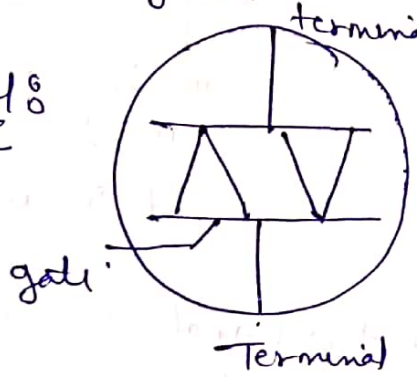
Electrical equivalent circuit

The TRIAC is another three terminal ac switch that is triggered into conduction when a low energy signal is applied to its gate terminal unlike the SCR the TRIAC conducts in either direction when turned on.

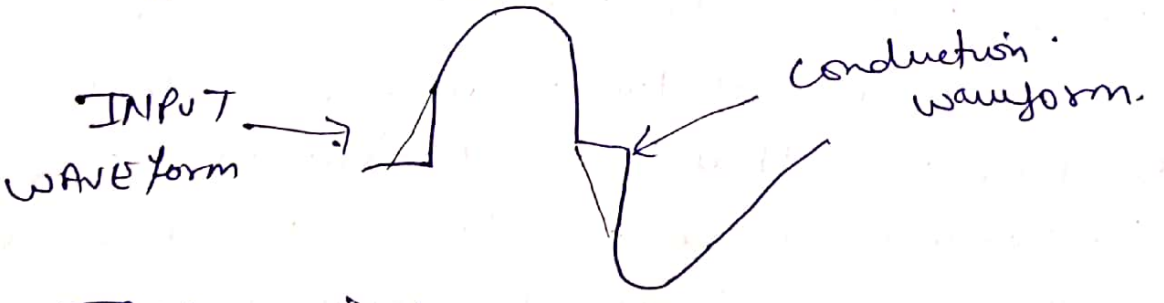
Construction:- The Triac is another three terminal Ac switch that is triggered into conduction when a low energy signal is applied to its gate terminal unlike the SCR. the triac controls in either direction when turned on The Triac also differs from the SCR in that either a positive and negative gate signal triggers it into conduction Thus the triac is a three terminal four layer bidirectional semiconductor device the control ac power why an SCR controls dc power of forward

biased half cycles of ac in a load. Because of its bidirectional conduction property the triac is widely used in the field power electronic for control purposes. Triac of .16 kw rating are readily available in the market. Triac is an abbreviation for three terminal ac switch. This indicates that the device has three terminals and ac indicates that the device controls alternating current or can conduct in either direction

Symbol:



The TRIAC is and ideal device used for the AC switching application. This can control the flow of current over both halves of an alternating cycles. Only the ~~Fig~~ thyristor - can control over the one half of a cycle. The other remaining half no conduction occurs and accordingly only half half the waveform can utilized



TRIAC switching operation