

SCR Commutation Techniques

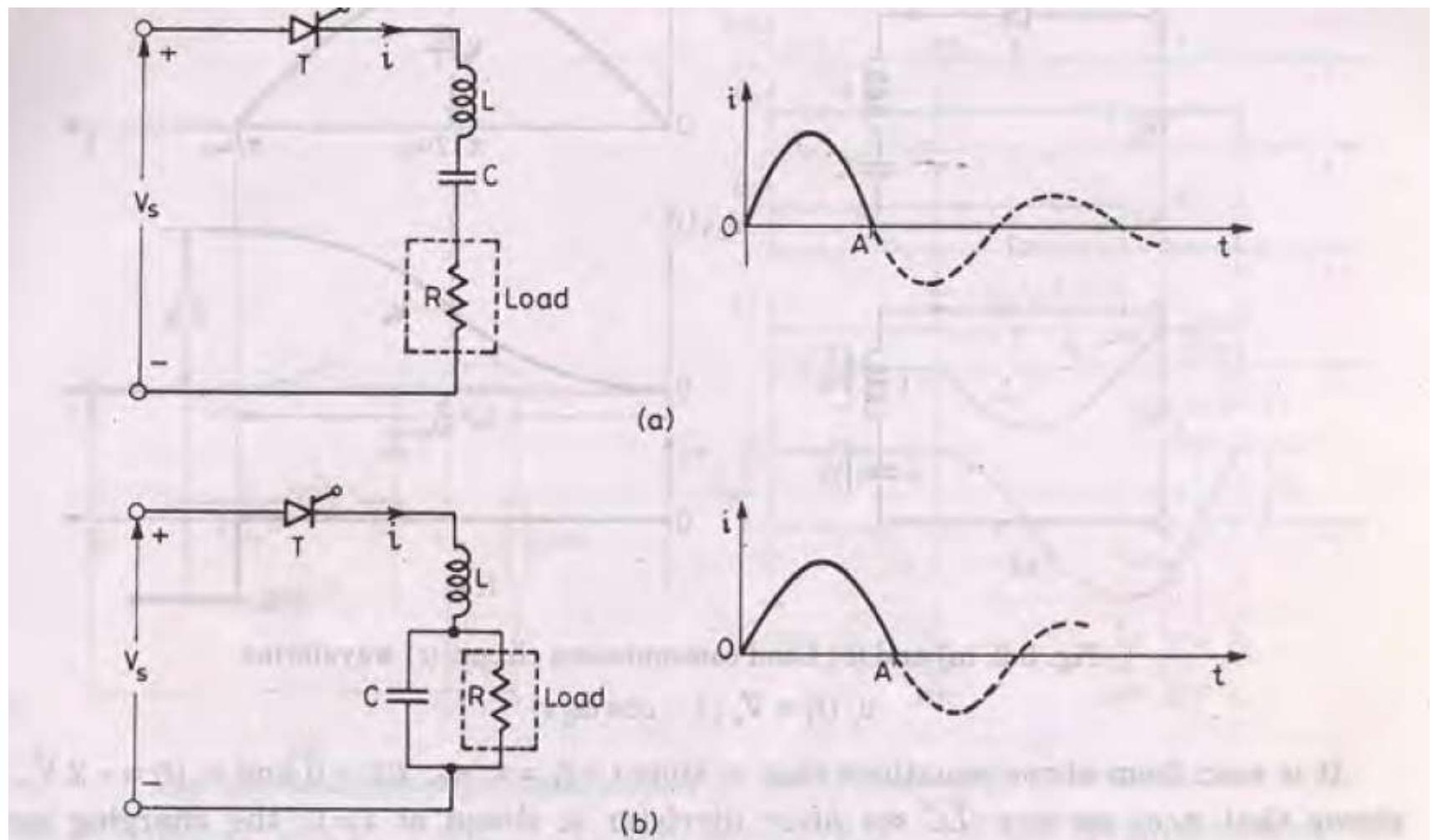
SCR Turn off

- Broadly divided into -----
 - Current Commutation
 - [reducing anode current below holding current]
 - Voltage Commutation
 - [Reverse bias SCR]

Classes of Commutations

- Class A Commutation
- Class B Commutation
- Class C Commutation
- Class D Commutation
- Class E Commutation
- Class F Commutation

Class A Commutation : Load Commutation

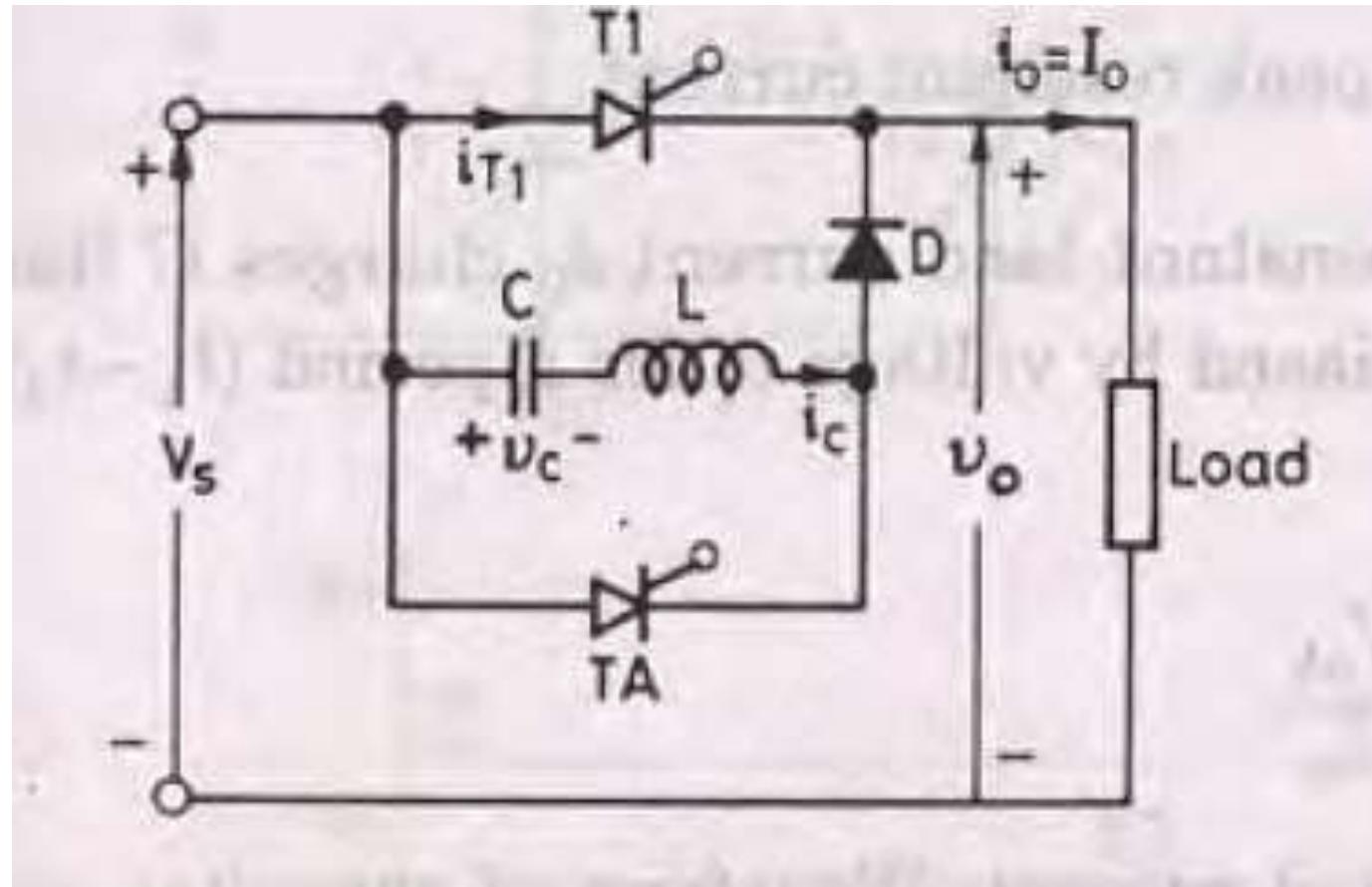


(a) Series Capacitor (b) Parallel Capacitor

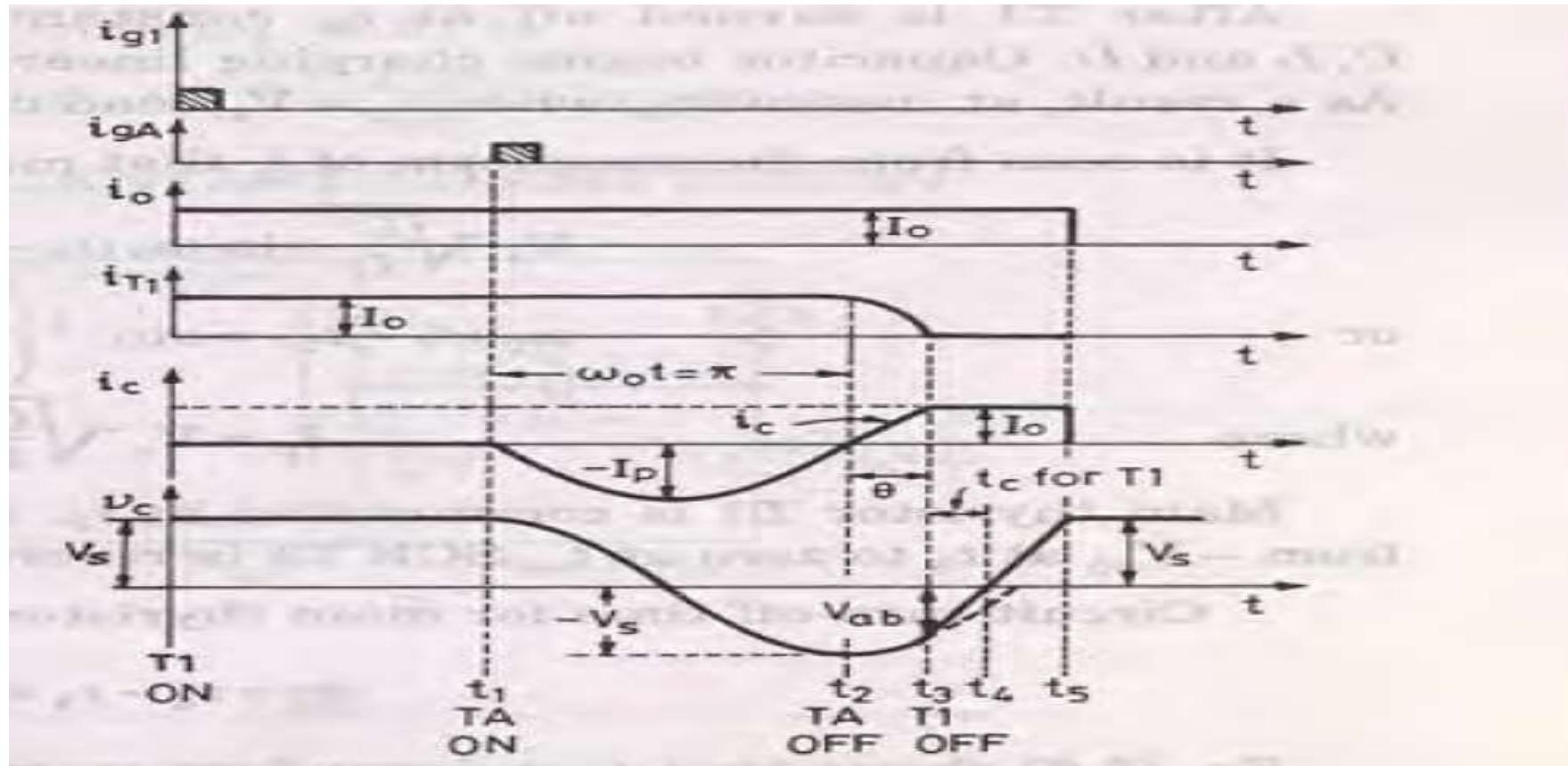
Class A

- Load Commutation
 - or
- Resonant Commutation
 - or
- Self Commutation
- Application : Series Inverter

Class B Commutation : Resonant Pulse Commutation

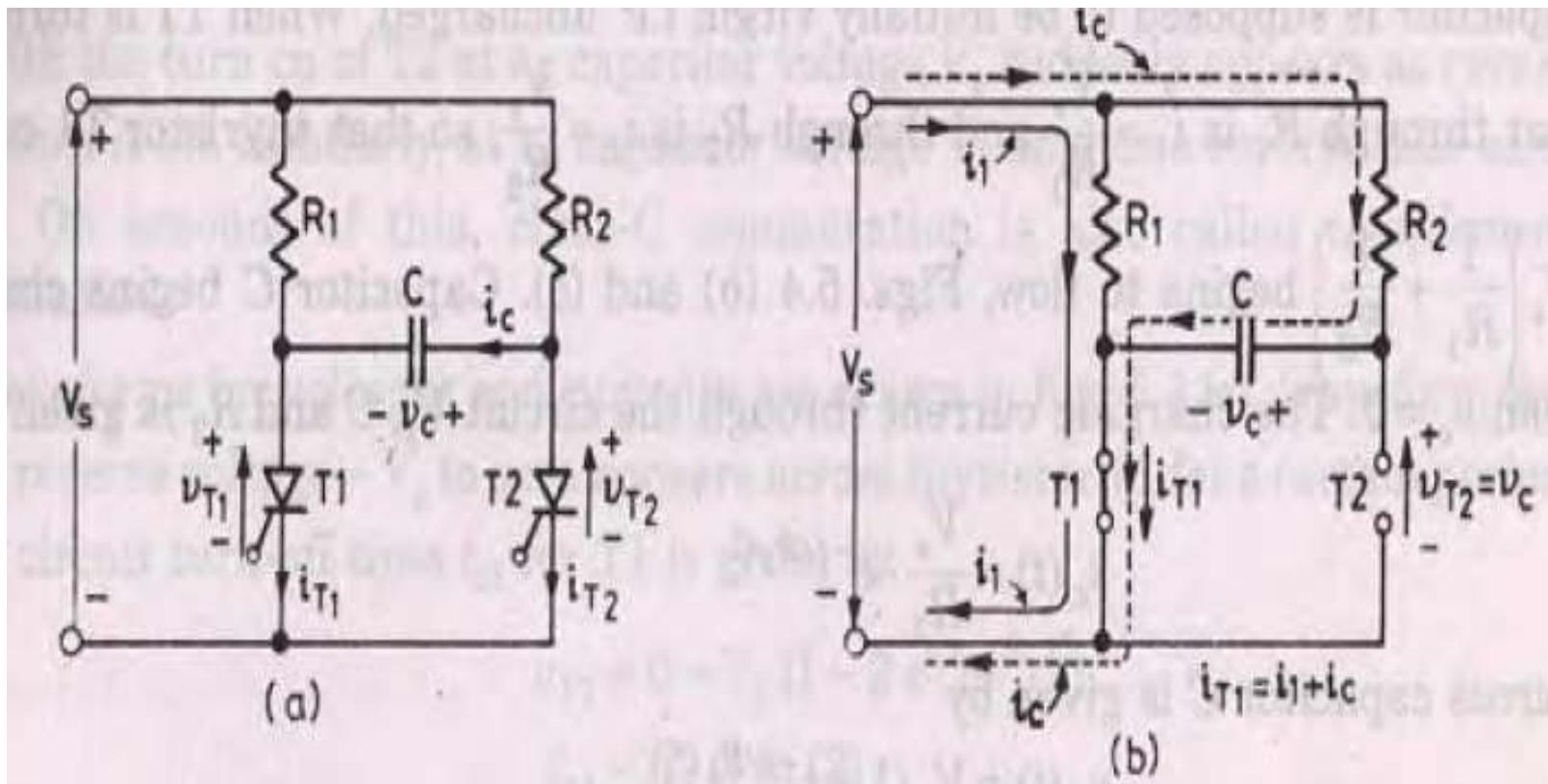


Class B Commutation : Resonant Pulse Commutation

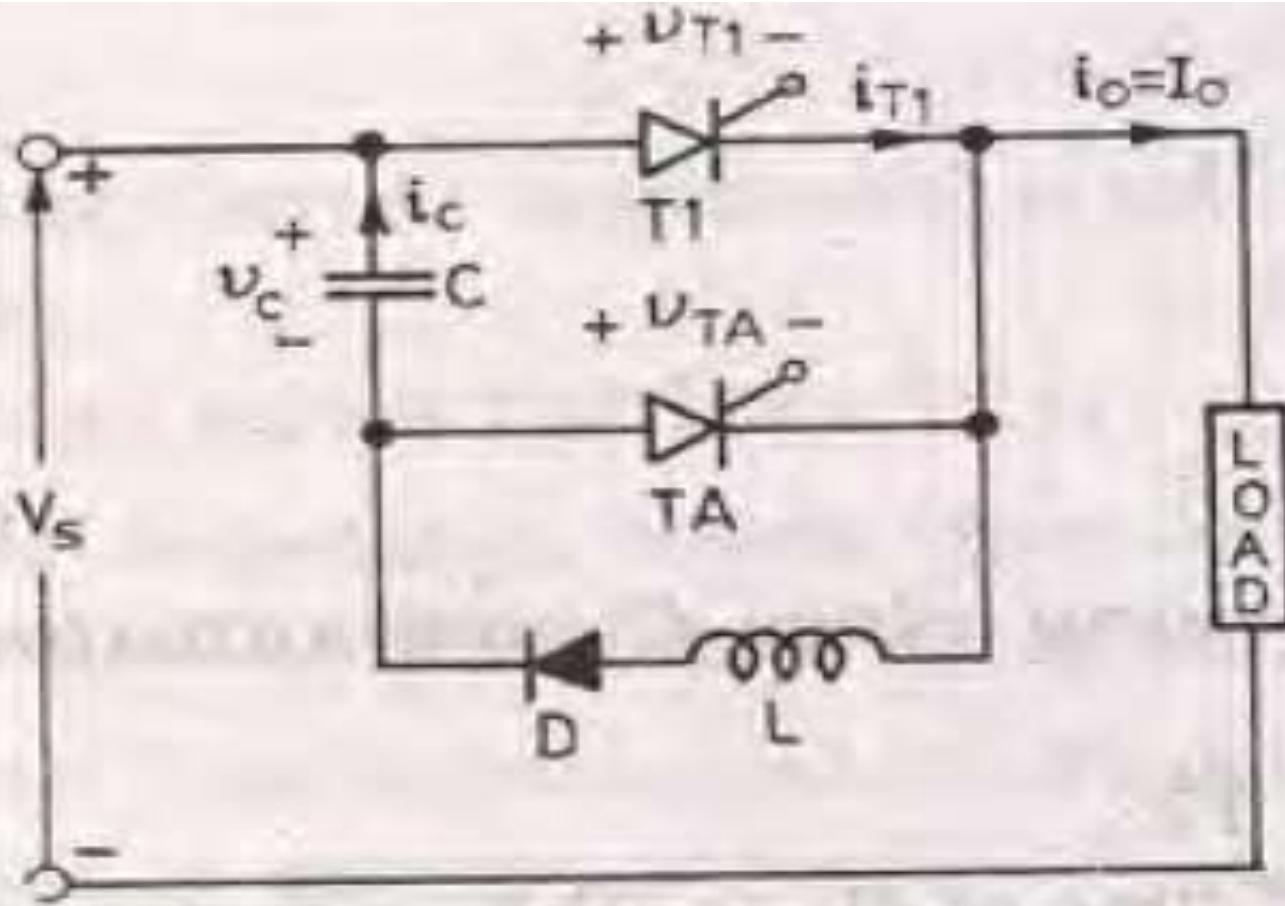


Current Commutation or Resonant Pulse Commutation

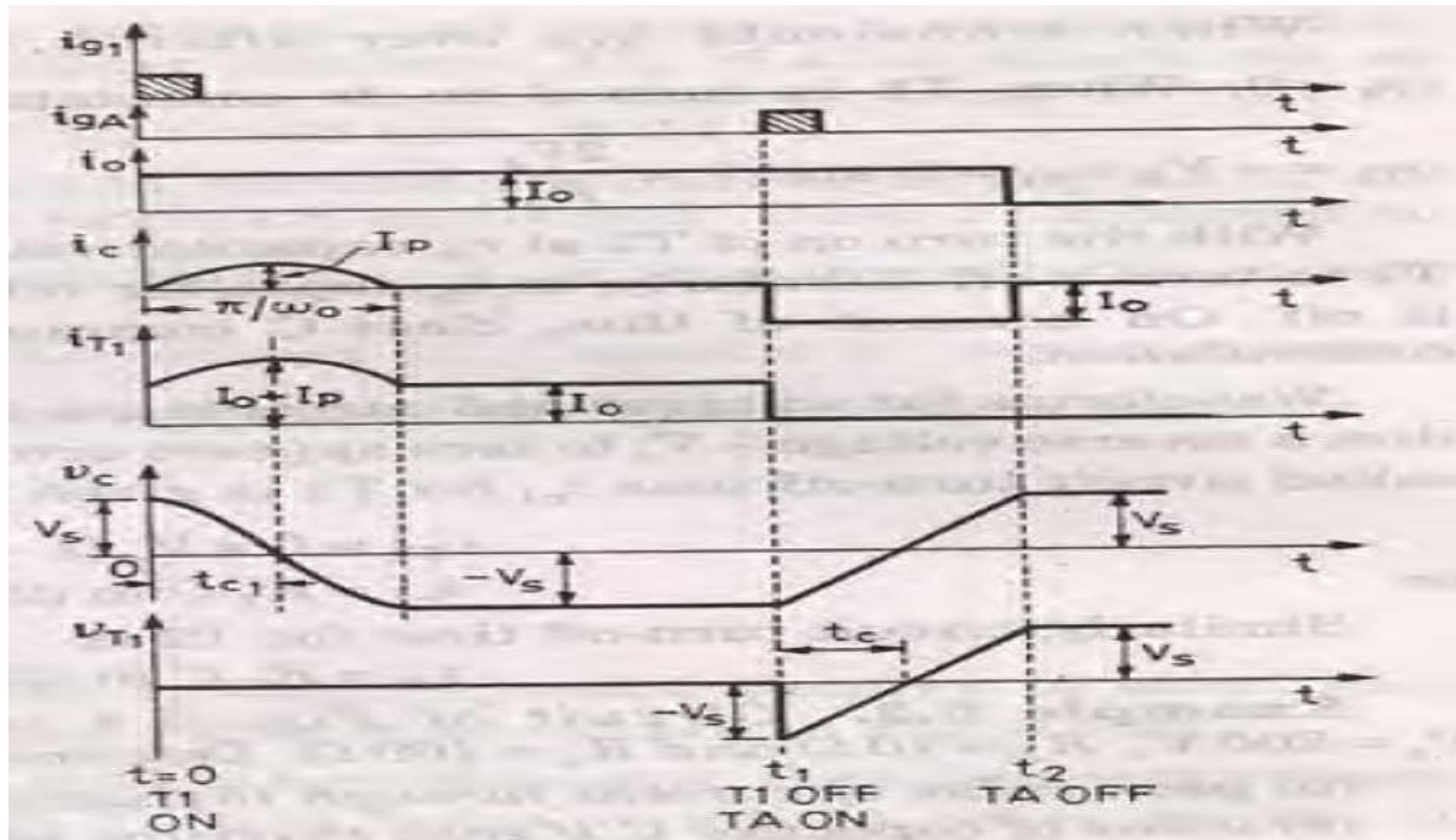
Class C Commutation : Complementary Commutation



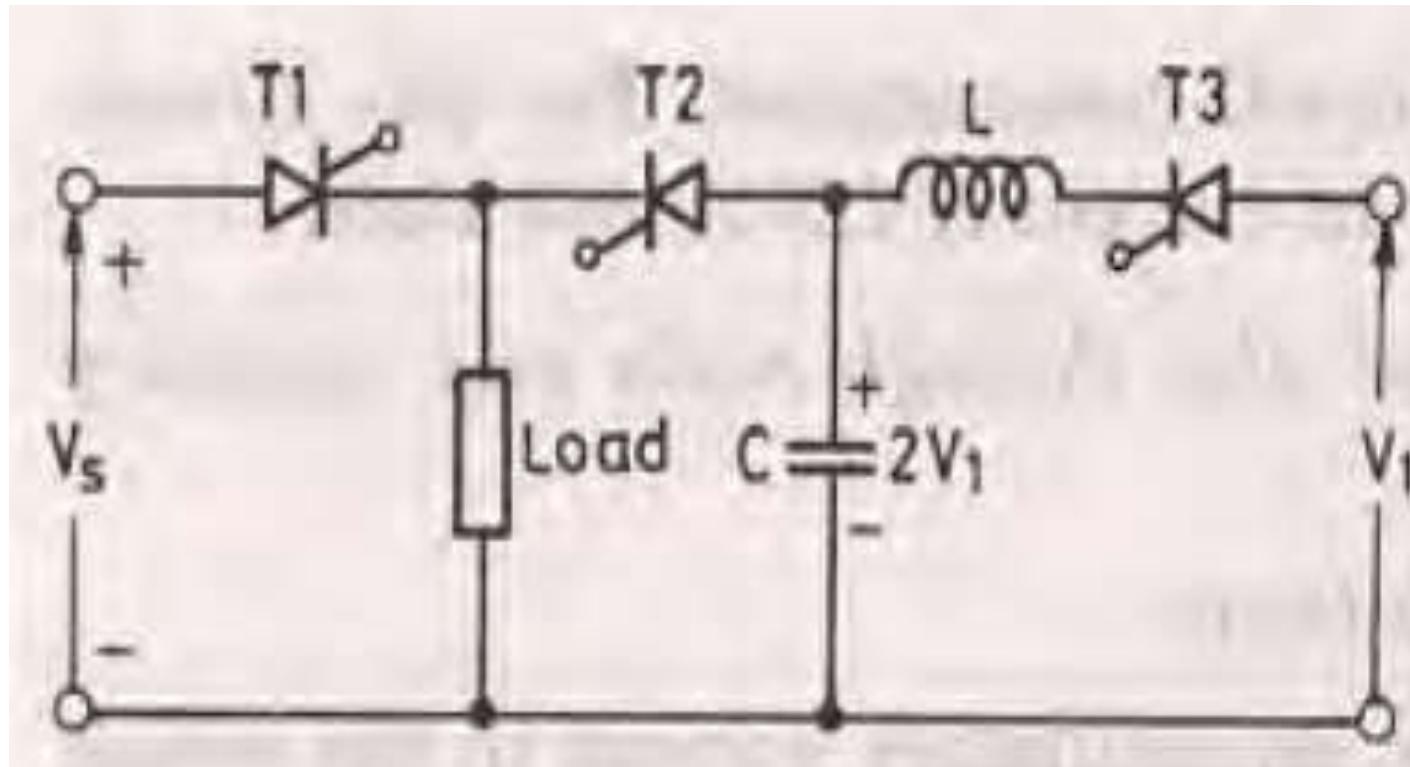
Class D : Impulse Commutation



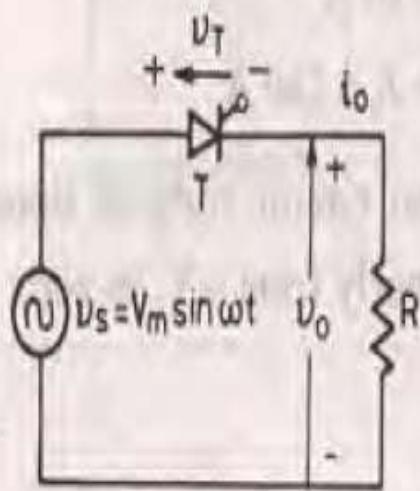
Class D : Impulse Commutation



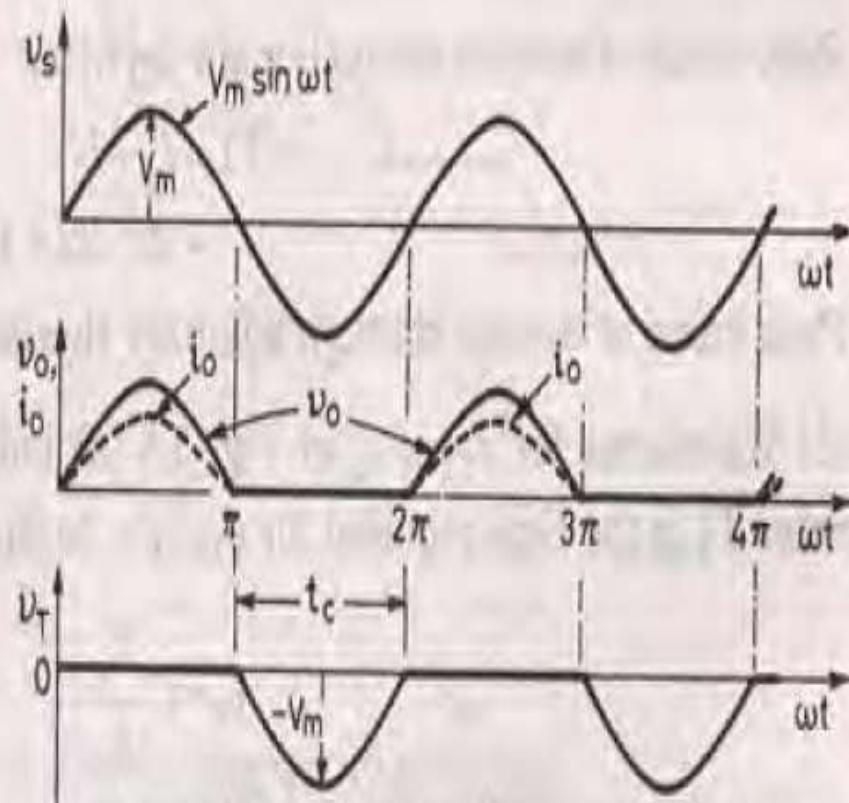
Class E : External Pulse Commutation



Class F : Line Commutation



(a)



(b)

Summing up

- Line Commutation or Natural Commutation : Class F
- Load Commutation : Class A
- Forced Commutation : Class B , C , D
- External Pulse Commutation : Class E