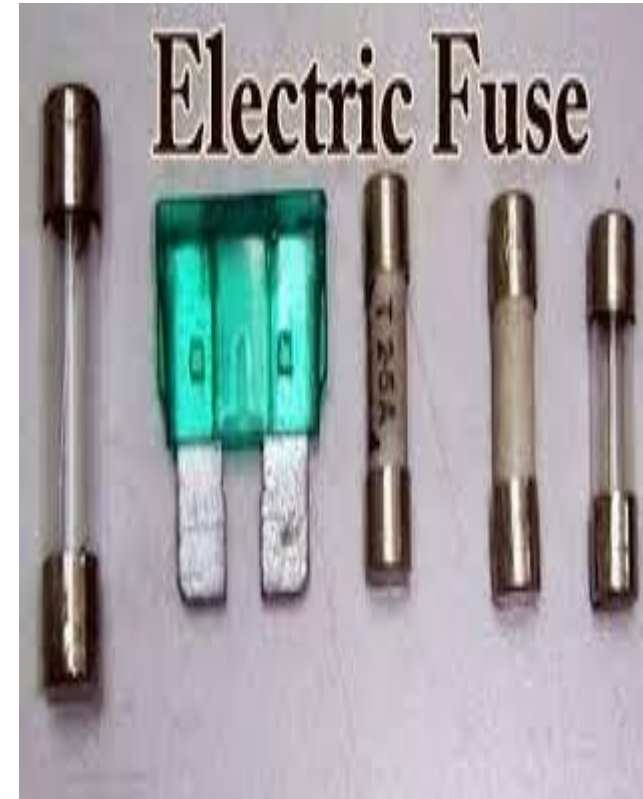




ELECTRONIC FUSES

- eFuses, or electronic fuses, are integrated circuits that can **replace larger conventional fuses or other protection devices such as resettable polymeric fuses.**
- Housed in small plastic packages, such as DFN and Flip-chip, they integrate a control circuit and a power switch with low on-resistance, connecting the input port to the load.

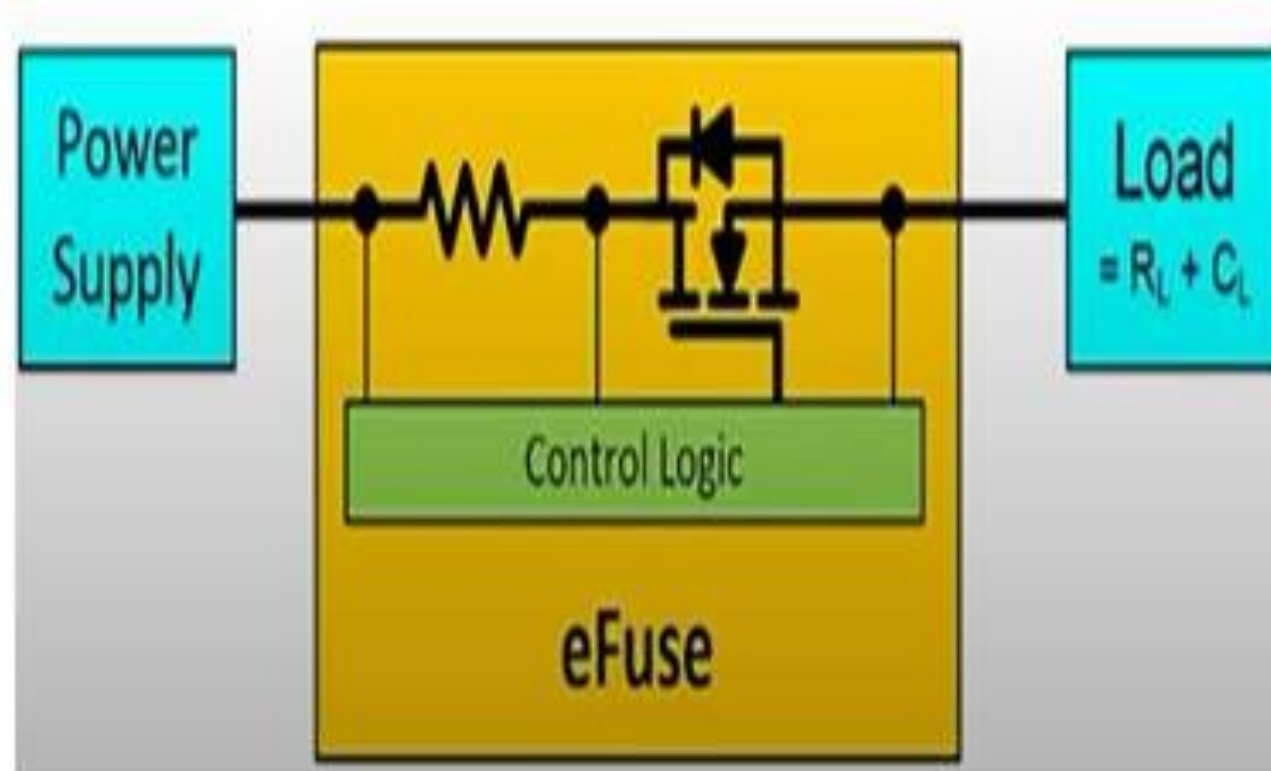


6/27/2024



ELECTRONIC FUSES

- **E FUSE**





ELECTRONIC FUSES

- **Advantages:**

- Due to less external components requirement, it saves board space. It is compact. It offers robust protection compare to discrete component based protection circuit. The eFuses are semiconductor ICs and hence offers rapid response during short circuits. It performs well over wide temperature range with minimal changes in its parameters. There is no change in its "ON resistance" even after faulty conditions in the circuit. It blocks the reverse current.



ELECTRONIC FUSES



- **Disadvantages:**

- It houses more terminals. **Basic architecture of efuse consists of three terminals viz. input, output and ground.**
- It requires **bias current to operate.**
- It is complex in construction. **Advancement in semiconductor domain has reduced its size**