



SNS COLLEGE OF ENGINEERING

Coimbatore-35
An Autonomous Institution



Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF CSE (IoT)

23ECT102- ELECTRONIC DEVICES AND CIRCUITS **I YEAR/ II SEMESTER**

UNIT 5 – Rectifier & Filters

TOPIC –PN Junction as a Rectifier



Rectifier

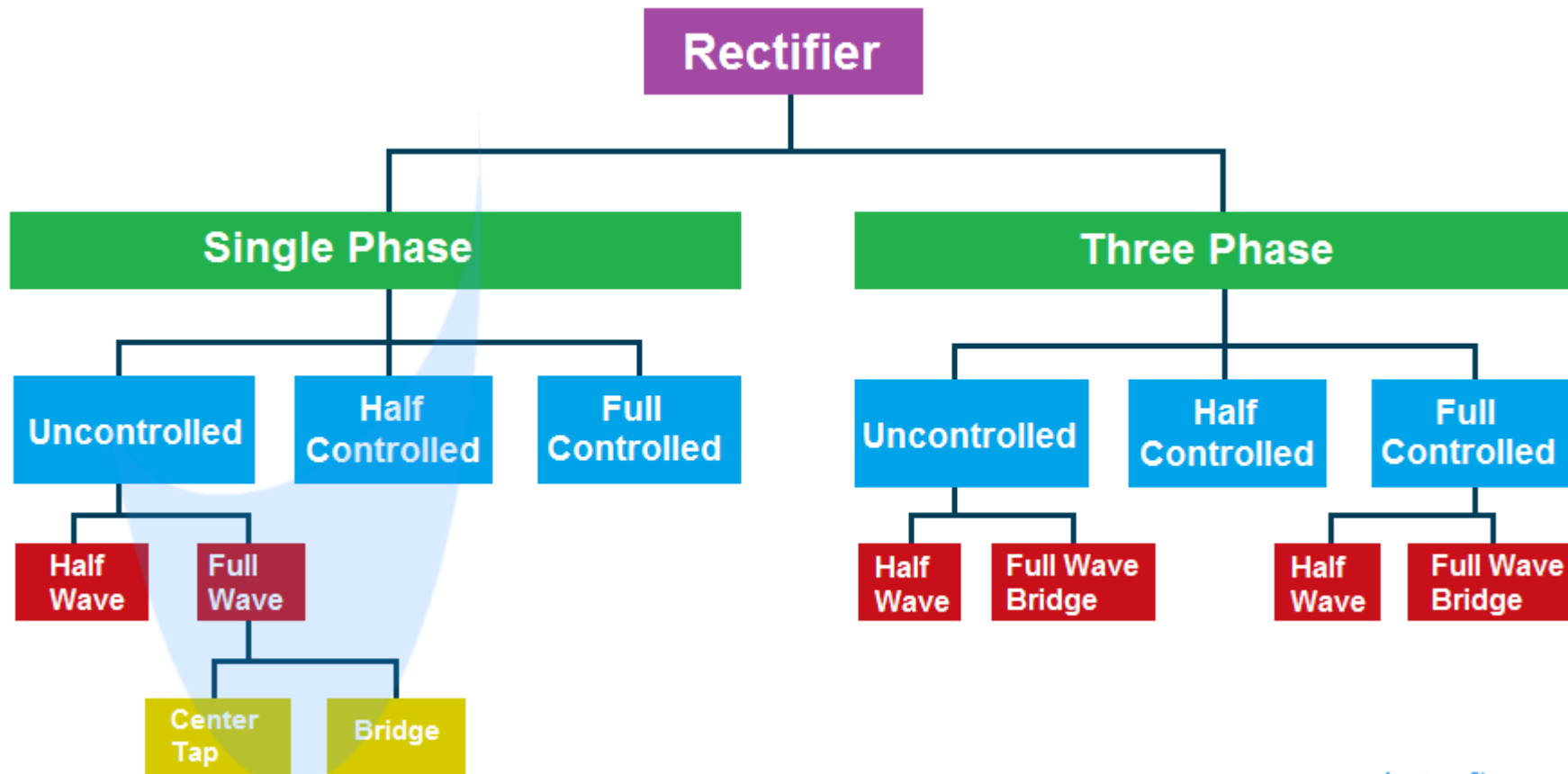


- A rectifier is an electronic device that converts alternating current (AC) into direct current (DC).
- It achieves this by using diodes or other semiconductor devices to allow current to flow in only one direction.
- This process of converting AC to DC is called rectification.





Types of Rectifier (Based on input)

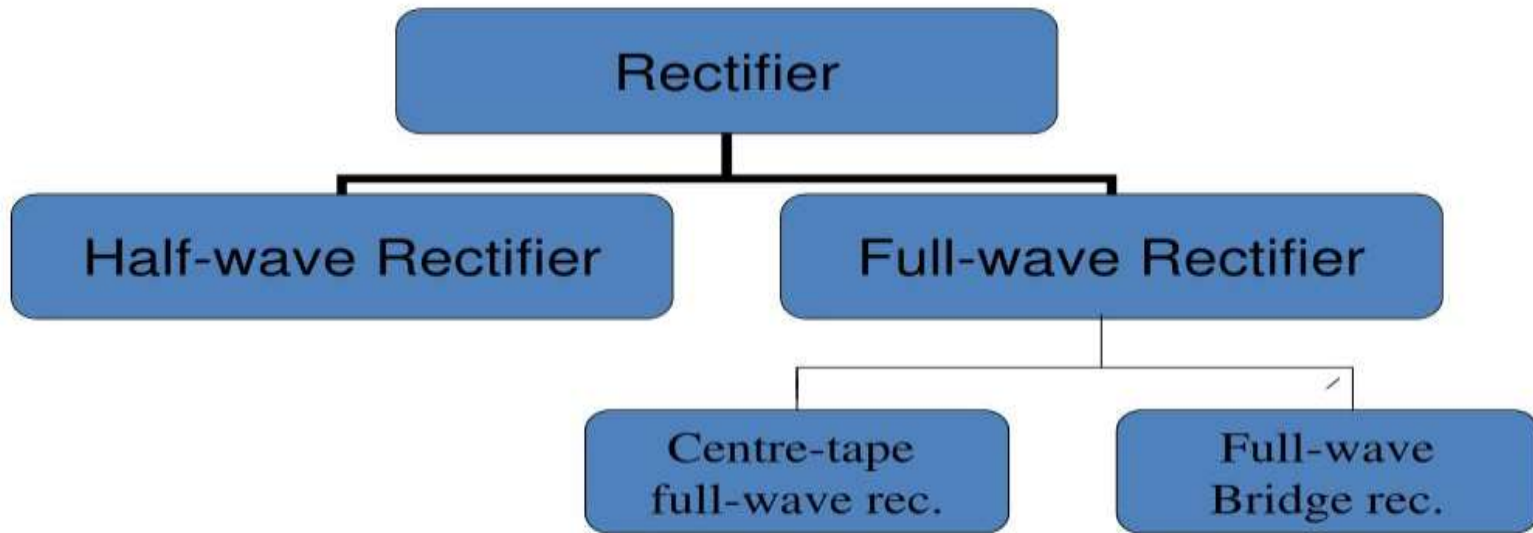


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Types of Rectifier (Based on output)

TYPES OF RECTIFIERS





Explanation



- Half-wave Rectifier:** Converts only the positive or negative half-cycle of an AC signal into DC.
- Full-wave Rectifier:** Converts both the positive and negative half-cycles of an AC signal into DC. Full-wave rectifiers can be further divided into center-tap and bridge configurations.
- Bridge Rectifier:** A type of full-wave rectifier that uses four diodes to provide a more efficient DC conversion than a half-wave rectifier.



Thank you!