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Thyratron. Applications of Thyratron. Atomic structure.

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Born's atomic model. Energy levels. Energy Bands. Important Energy Bands in Solids. Classification of Solids and Energy Bands.

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Silicon. Semiconductor. Commonly Used Semiconductors. Energy band Description of Semiconductors. Effect of Temperature on Semiconductors.

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Hole current. Intrinsic Semiconductor. Extrinsic Semiconductor. n-type Semiconductor. p-type Semiconductor. Properties of pn Junction. Volt-Ampere Characteristics of pn Junction.

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Semiconductor Diode. Crystal Diode Equivalent Circuits. Crystal Diode Rectifiers. Output Frequency of Half-Wave Rectifier.

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Full-Wave Rectifier. Full-Wave Bridge Rectifier. Efficiency of Full-Wave Rectifier. Output Frequency of Full-Wave Rectifier. Efficiency of Full-Wave Rectifier.

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Filter Circuits. Types of Filter Circuits. Voltage Multipliers.

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Special-Purpose Diodes (Zener Diode, Light Emission Diode (LED), Photo-Diode, Optoisolator).

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Special-Purpose Diodes (Tunnel Diode, Oscillator, Varactor Diode, Shockley Diode).

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Transistor. Some facts about the Transistor. Transistor Symbols, Transistor Connections. Characteristics of common Base Connection.