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# Technician Question Pool

## July 2022 to June 2026

### The MORE Project

<http://n2re.org/m-o-r-e-project>

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# Electronic Components & Circuits

## No-Nonsense pages 31 - 36

**Circuit diagrams, schematic symbols,  
component functions, resonant (tuned) circuits**

When describing circuits on paper, we draw schematic diagrams that show the components and how they are connected together. The circuit components are represented by symbols that readily identify its type, value or part number.



# Figures

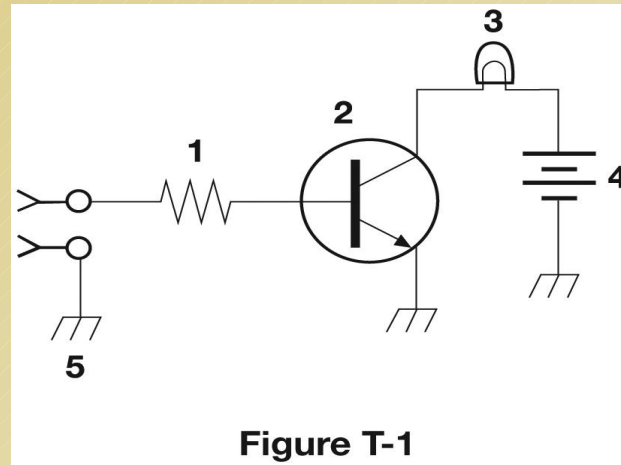


Figure T-1

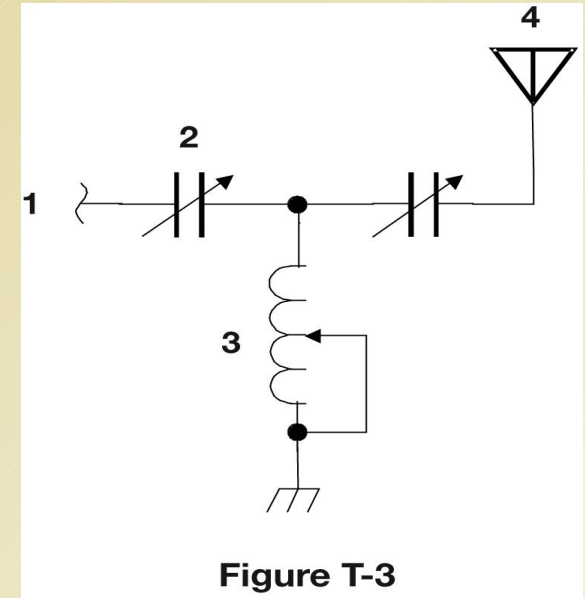


Figure T-3

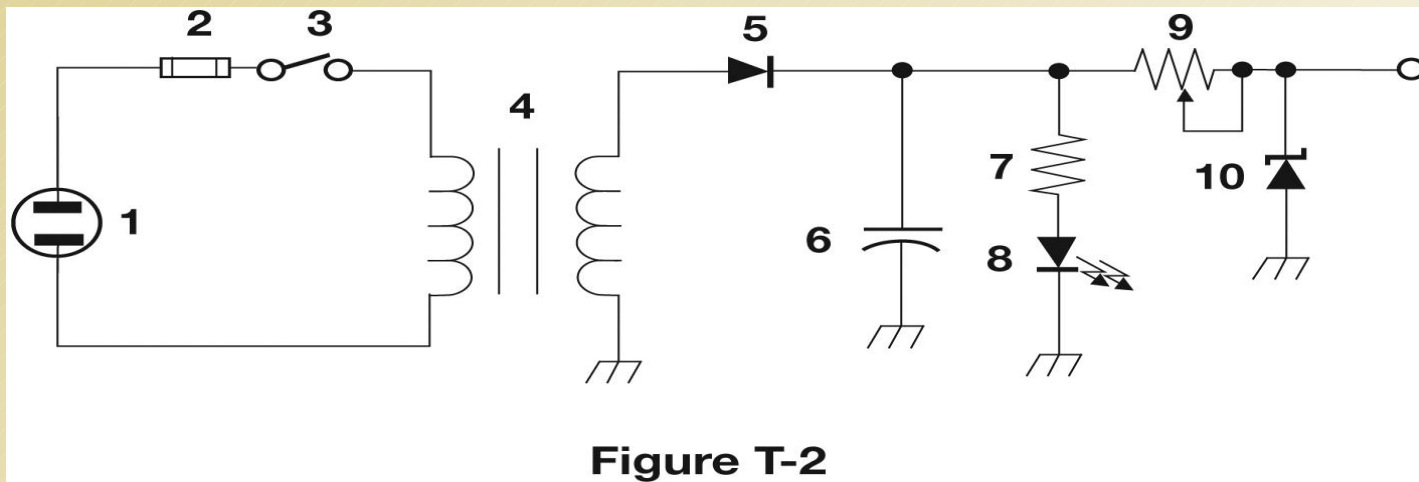


Figure T-2



# T6C01

What is the name of an electrical wiring diagram that uses standard component symbols?

- A. Bill of materials
- B. Connector pinout
- C. Schematic
- D. Flow chart



ECCD4 Q1 of 18

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# T6C01

What is the name of an electrical wiring diagram that uses standard component symbols?

- A. Bill of materials
- B. Connector pinout
- C. Schematic**
- D. Flow chart



# T6C12

Which of the following is accurately represented in electrical schematics?

- A. Wire lengths
- B. Physical appearance of components
- C. Component connections
- D. All of these choices are correct



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# T6C12

Which of the following is accurately represented in electrical schematics?

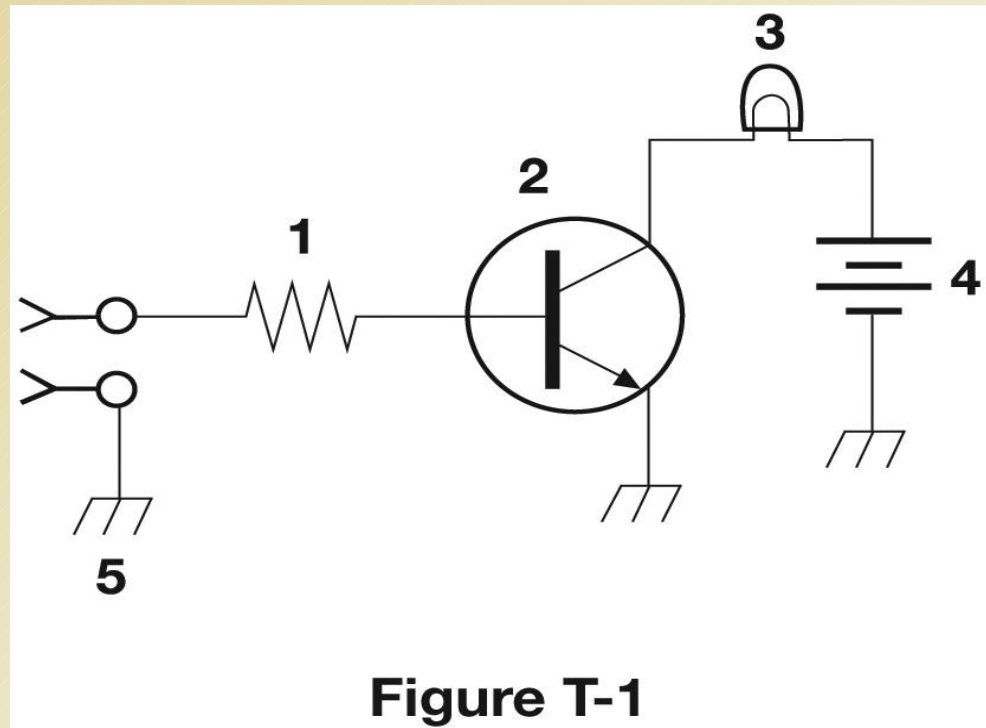
- A. Wire lengths
- B. Physical appearance of components
- C. Component connections**
- D. All of these choices are correct



# T6C02

What is component 1 in figure T1?

- A. Resistor
- B. Transistor
- C. Battery
- D. Connector



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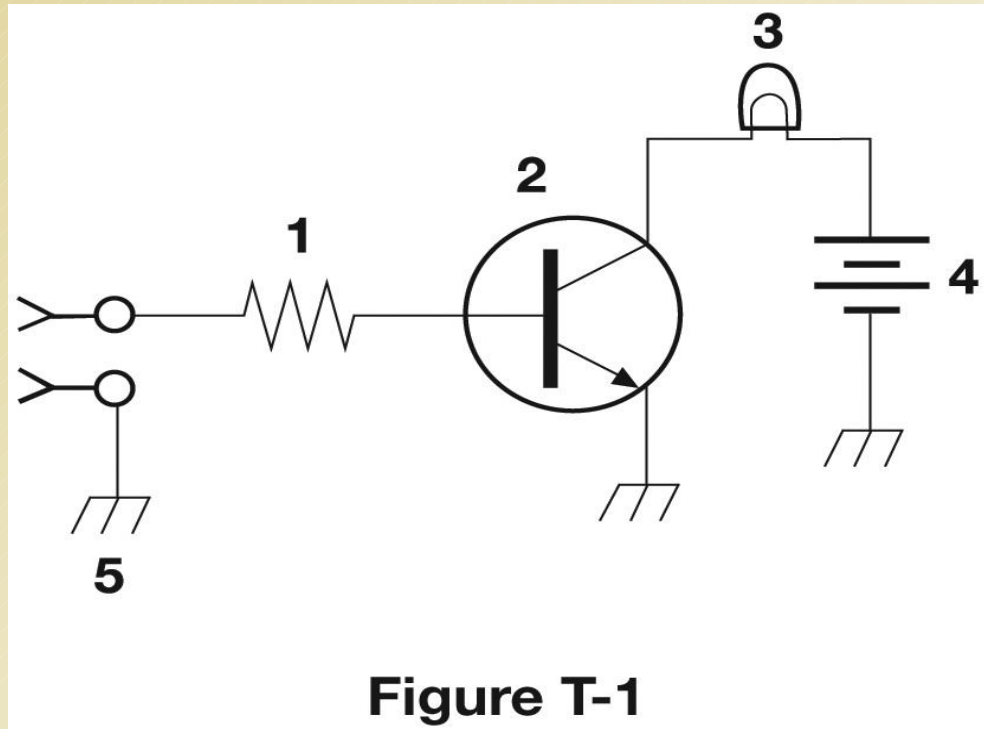
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# T6C02

What is component 1 in figure T1?

- A. Resistor
- B. Transistor
- C. Battery
- D. Connector



# T6C03

What is component 2 in figure T1?

- A. Resistor
- B. Transistor
- C. Indicator lamp
- D. Connector

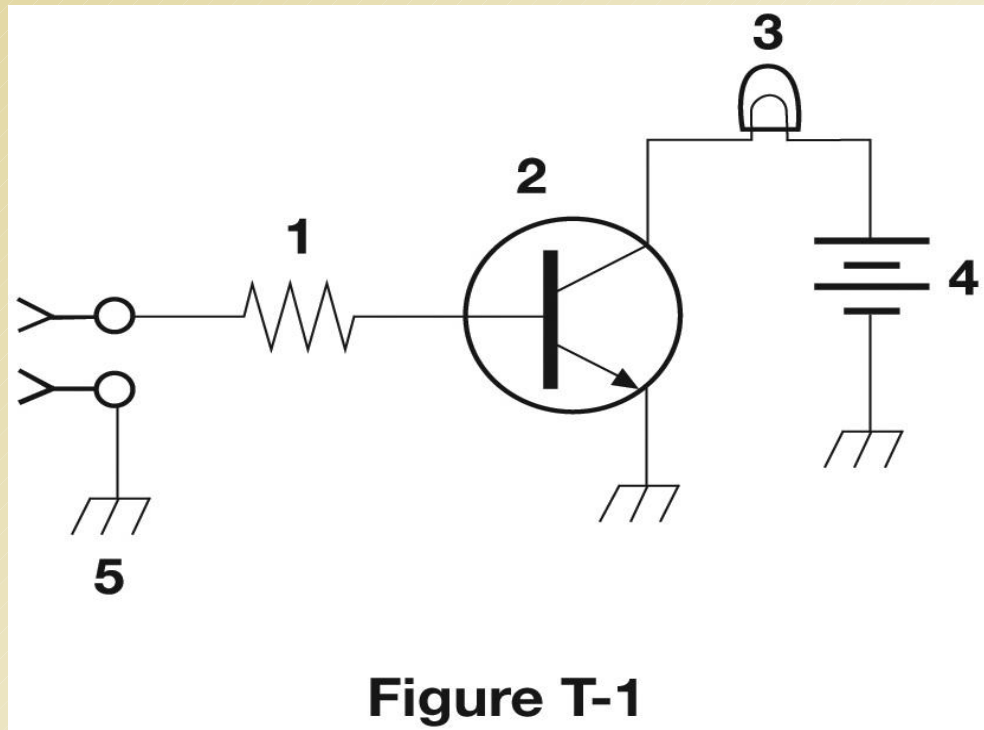


Figure T-1



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# T6C03

What is component 2 in figure T1?

- A. Resistor
- B. Transistor**
- C. Indicator lamp
- D. Connector

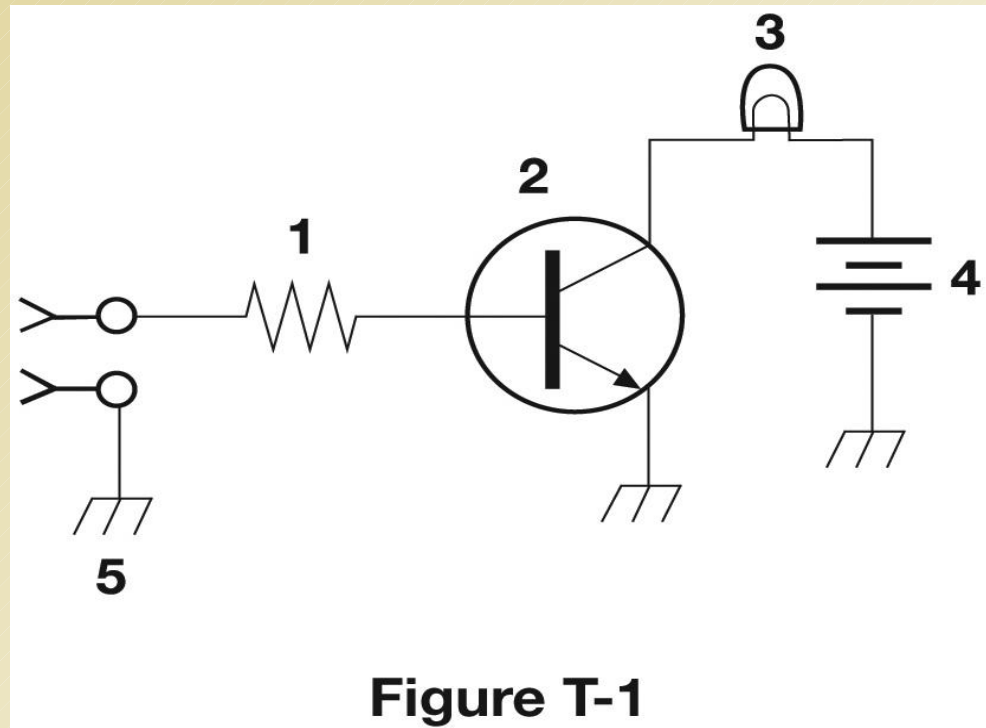


Figure T-1



# T6D10

What is the function of component 2 in Figure T1?

- A. Give off light when current flows through it
- B. Supply electrical energy
- C. Control the flow of current
- D. Convert electrical energy into radio waves

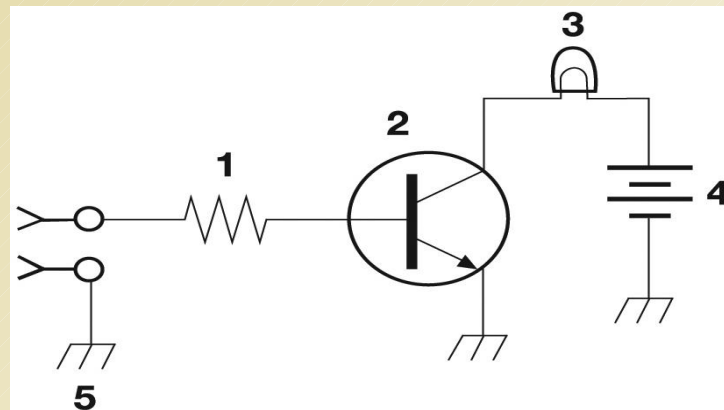


Figure T-1

ECCD4 Q5 of 18



# T6D10

What is the function of component 2 in Figure T1?

- A. Give off light when current flows through it
- B. Supply electrical energy
- C. Control the flow of current**
- D. Convert electrical energy into radio waves

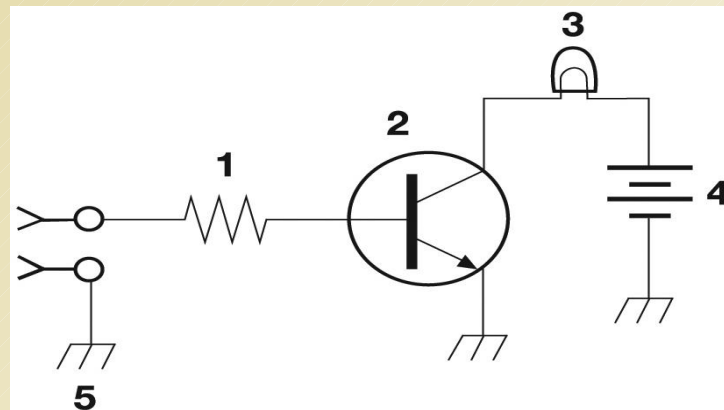


Figure T-1

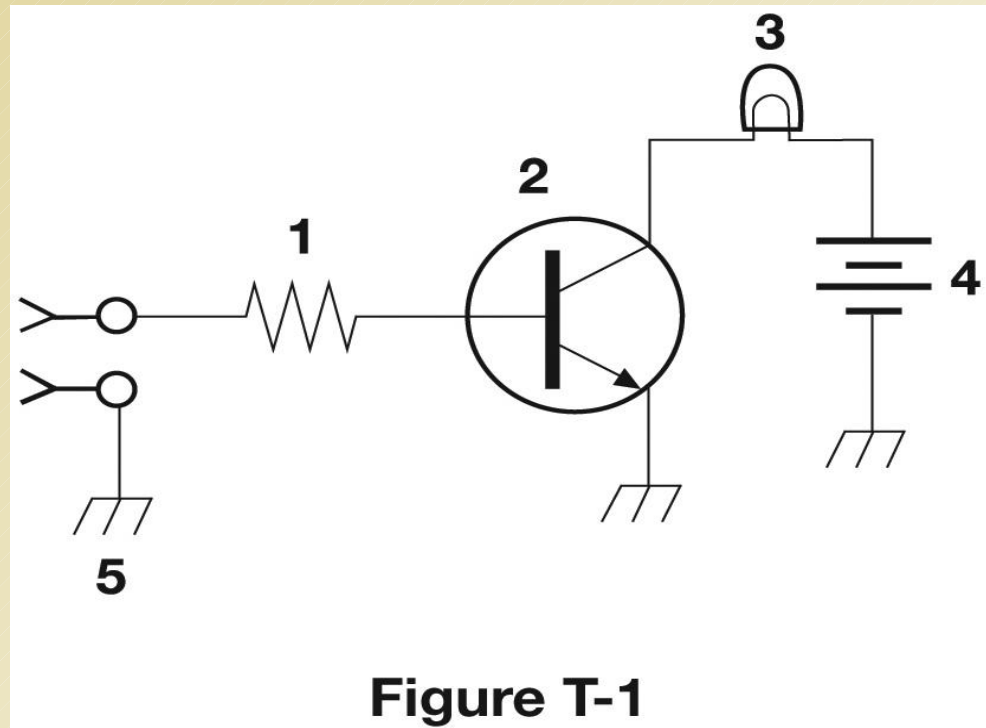
ECDD4 A5 of 18



# T6C04

What is component 3 in figure T1?

- A. Resistor
- B. Transistor
- C. Lamp
- D. Ground symbol



# T6C04

What is component 3 in figure T1?

- A. Resistor
- B. Transistor
- C. Lamp**
- D. Ground symbol

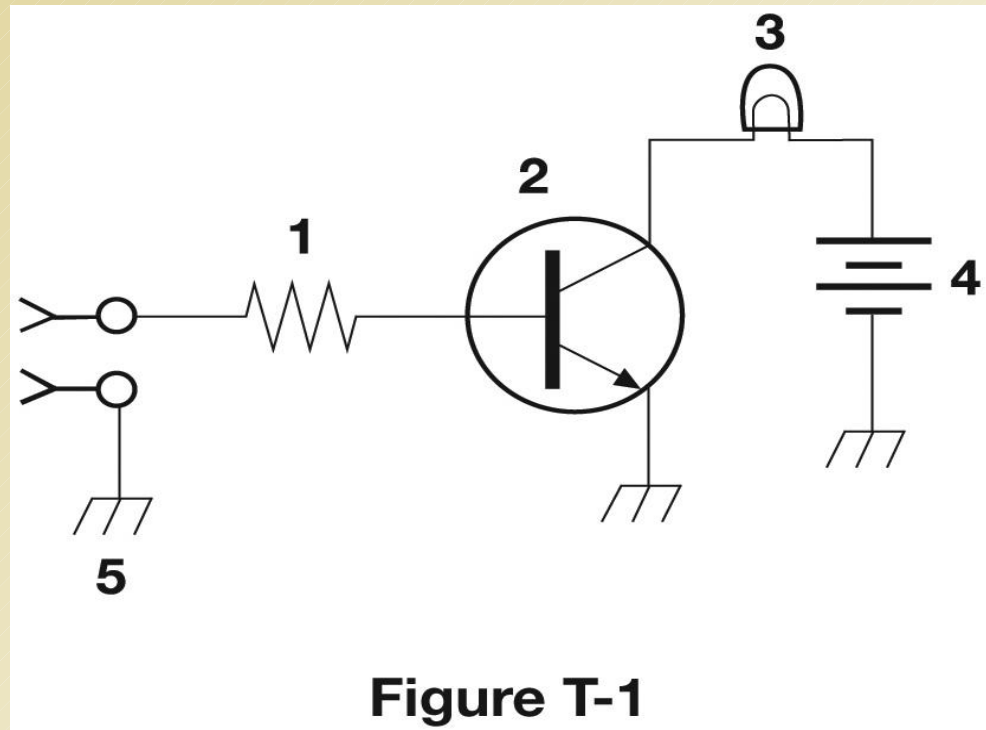


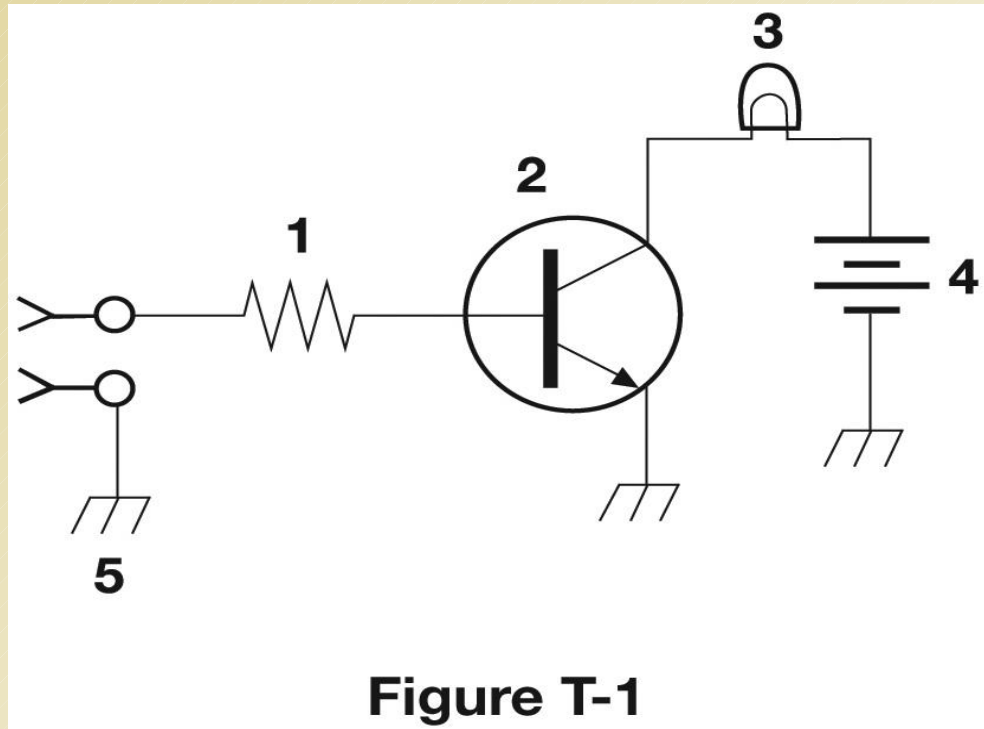
Figure T-1



# T6C05

What is component 4 in figure T1?

- A. Resistor
- B. Transistor
- C. Ground symbol
- D. Battery

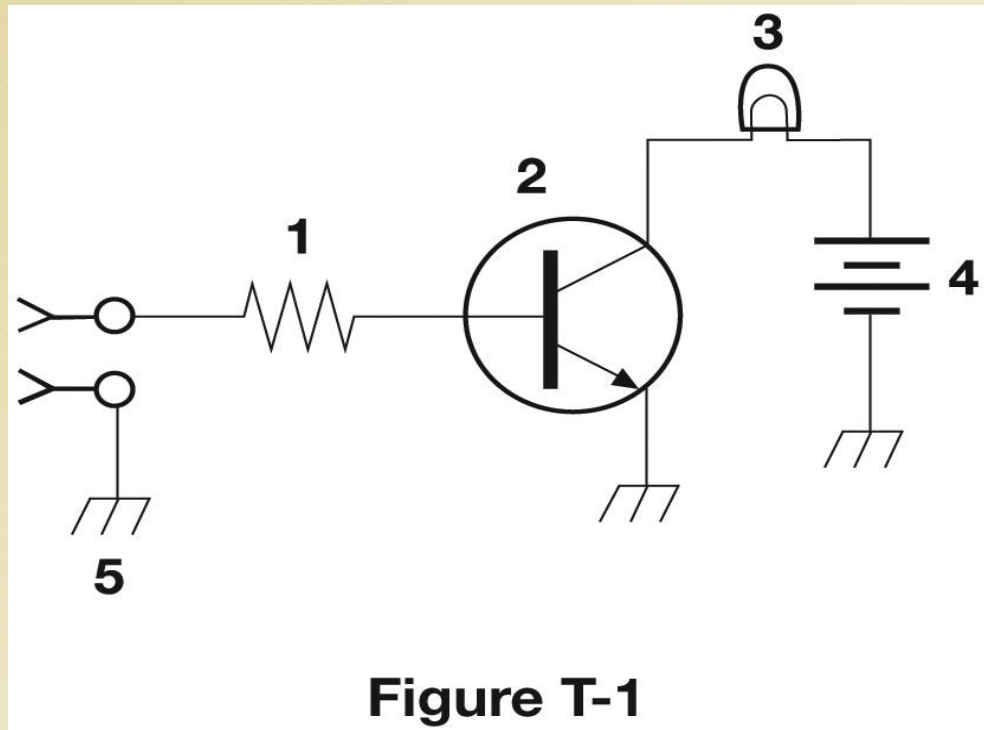




# T6C05

What is component 4 in figure T1?

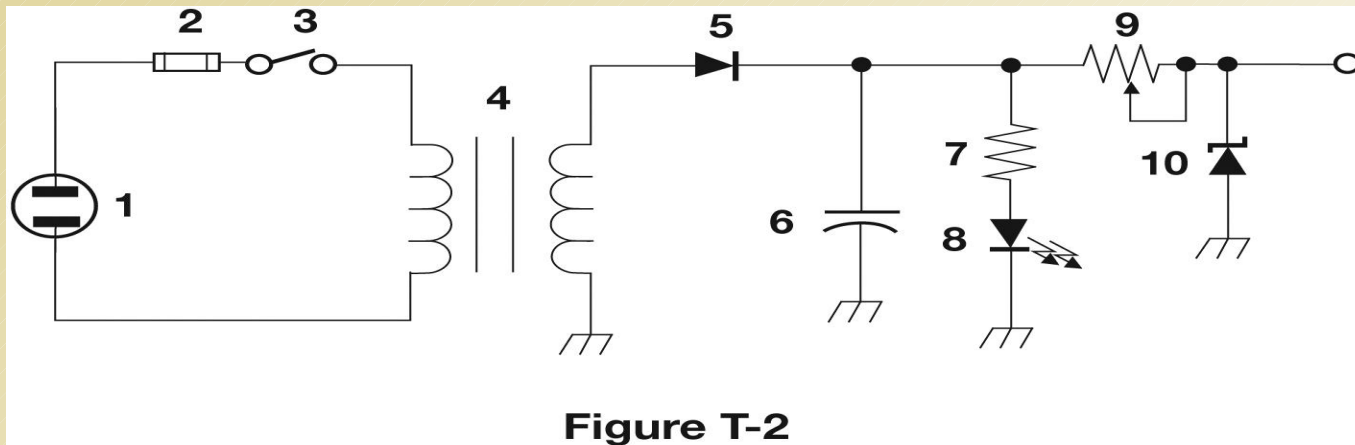
- A. Resistor
- B. Transistor
- C. Ground symbol
- D. Battery**



# T6A12

What type of switch is represented by component 3 in figure T2?

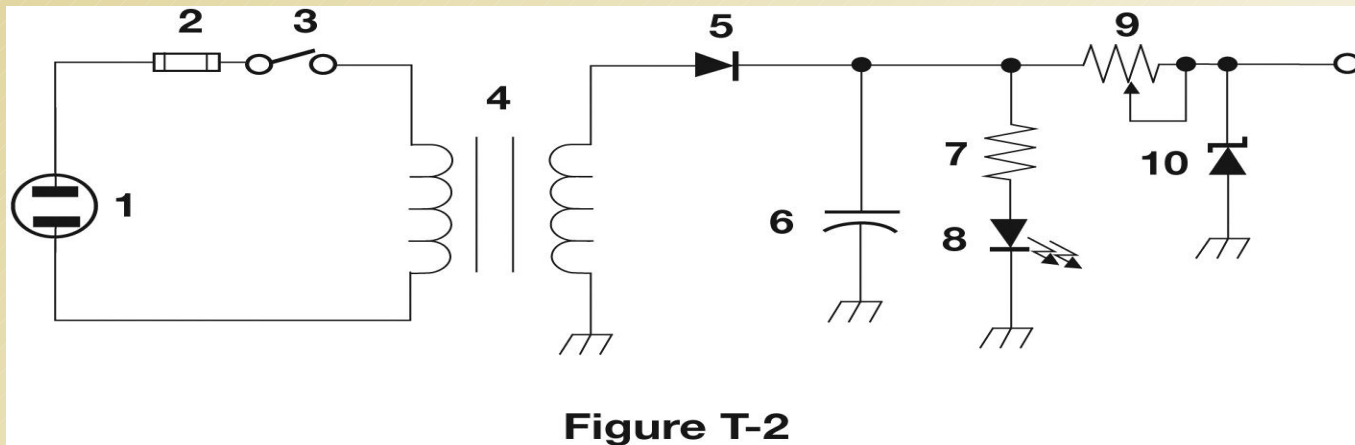
- A. Single-pole single-throw
- B. Single-pole double-throw
- C. Double-pole single-throw
- D. Double-pole double-throw



# T6A12

What type of switch is represented by component 3 in figure T2?

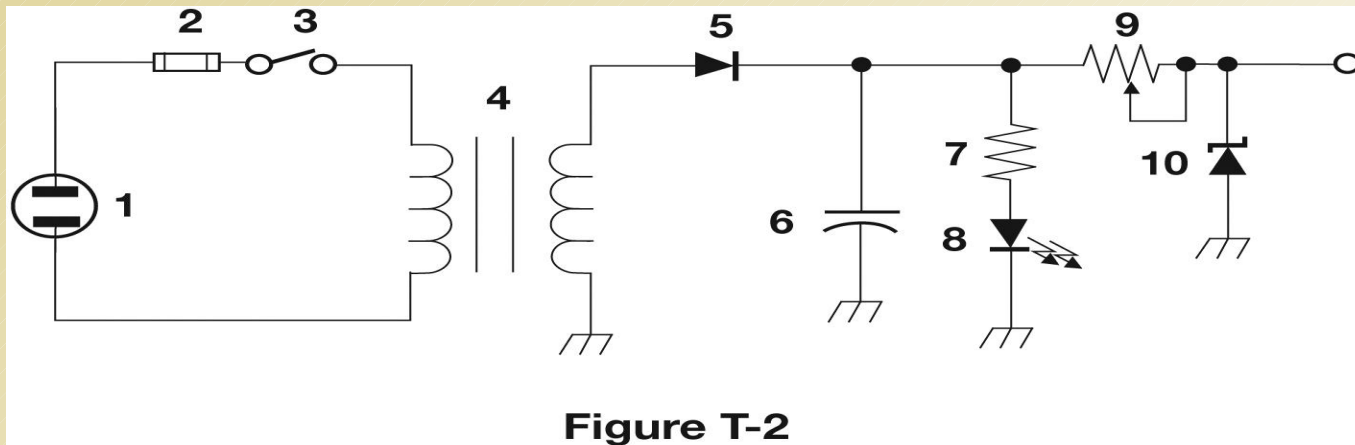
- A. Single-pole single-throw
- B. Single-pole double-throw
- C. Double-pole single-throw
- D. Double-pole double-throw



# T6C09

What is component 4 in figure T2?

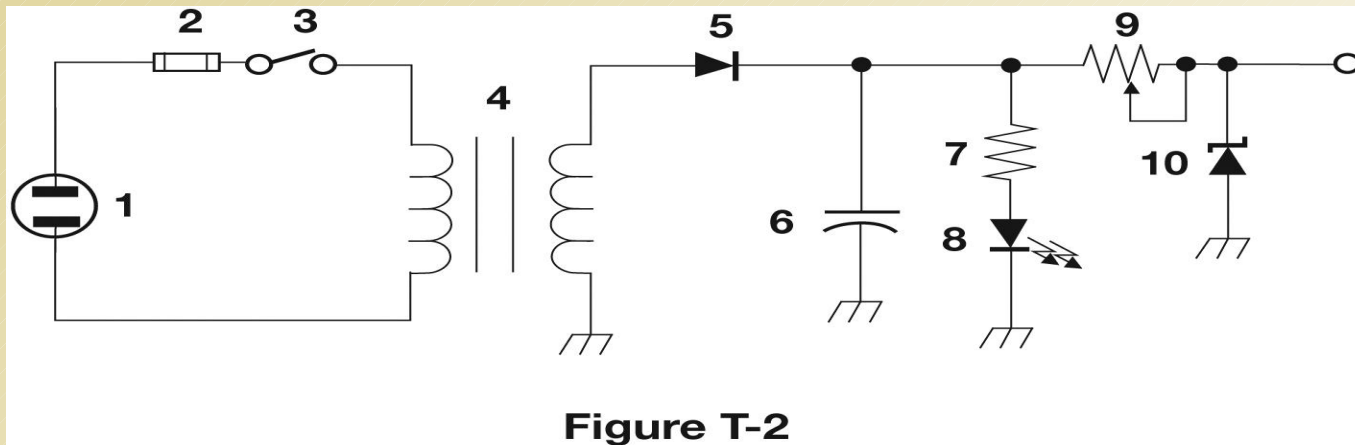
- A. Variable inductor
- B. Double-pole switch
- C. Potentiometer
- D. Transformer



# T6C09

What is component 4 in figure T2?

- A. Variable inductor
- B. Double-pole switch
- C. Potentiometer
- D. Transformer**



# T6D06

What component changes 120V AC power to a lower AC voltage for other uses?

- A. Variable capacitor
- B. Transformer
- C. Transistor
- D. Diode



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# T6D06

What component changes 120V AC power to a lower AC voltage for other uses?

- A. Variable capacitor
- B. Transformer**
- C. Transistor
- D. Diode



# T6D01

Which of the following devices or circuits changes an alternating current into a varying direct current signal?

- A. Transformer
- B. Rectifier
- C. Amplifier
- D. Reflector



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# T6D01

Which of the following devices or circuits changes an alternating current into a varying direct current signal?

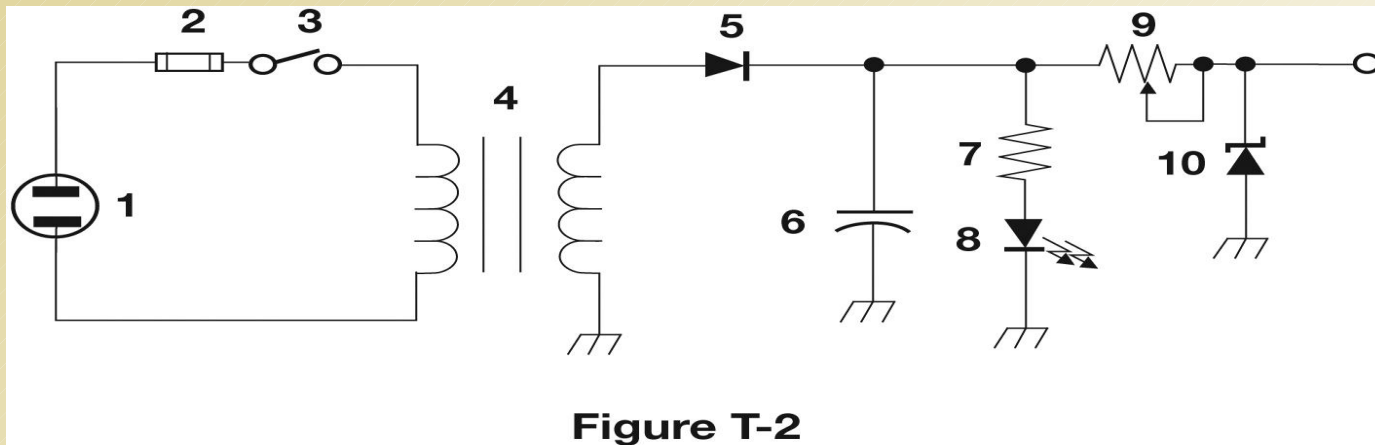
- A. Transformer
- B. Rectifier**
- C. Amplifier
- D. Reflector



# T6C06

What is component 6 in figure T2?

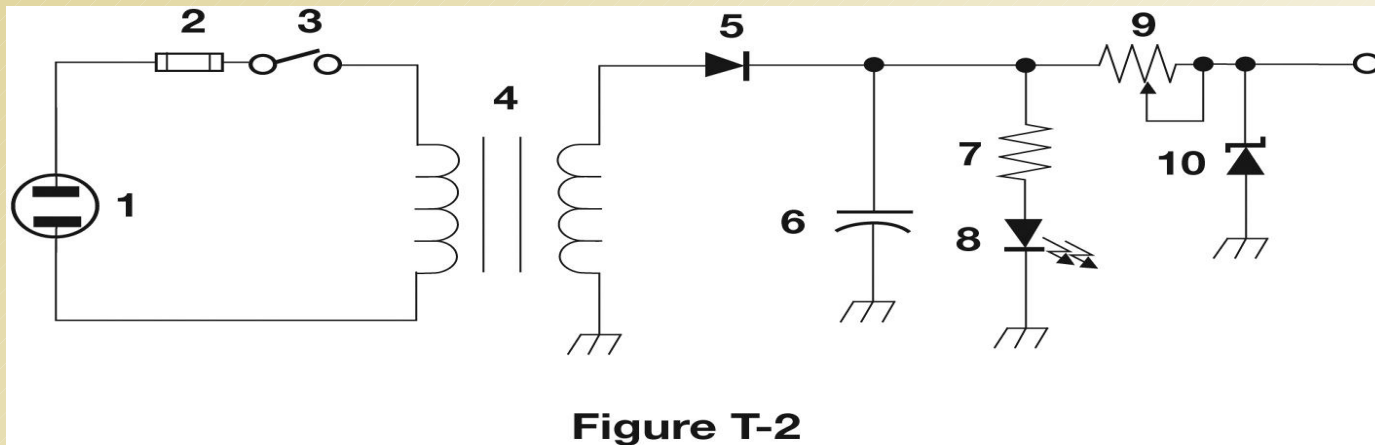
- A. Resistor
- B. Capacitor
- C. Regulator IC
- D. Transistor



# T6C06

What is component 6 in figure T2?

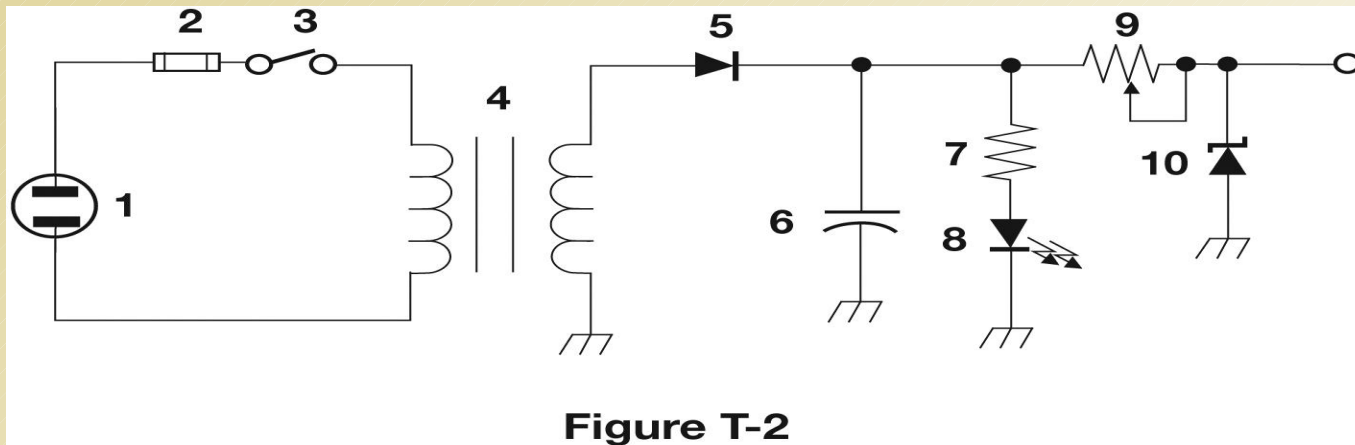
- A. Resistor
- B. Capacitor**
- C. Regulator IC
- D. Transistor



# T6C07

What is component 8 in figure T2?

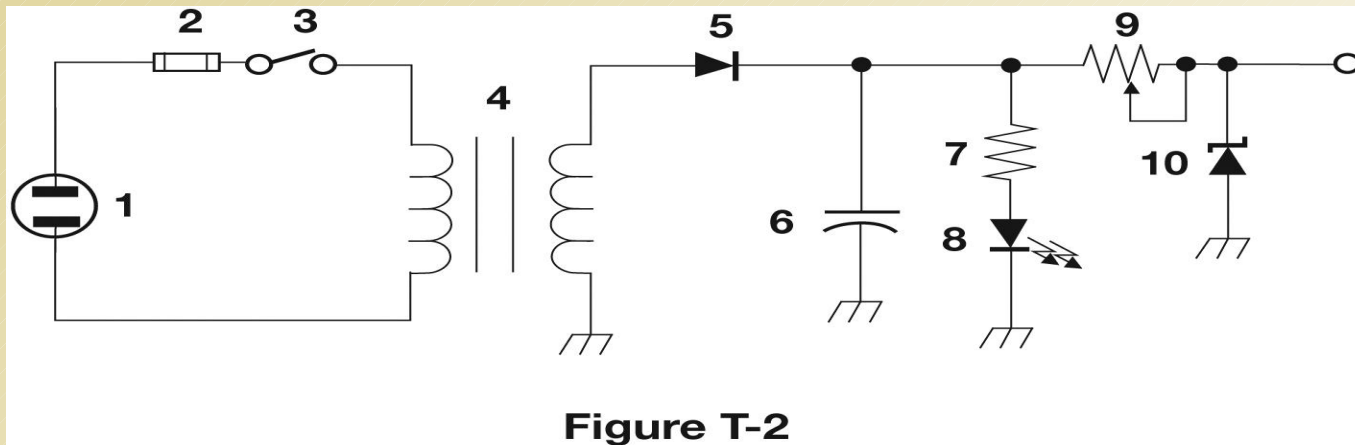
- A. Resistor
- B. Inductor
- C. Regulator IC
- D. Light emitting diode



# T6C07

What is component 8 in figure T2?

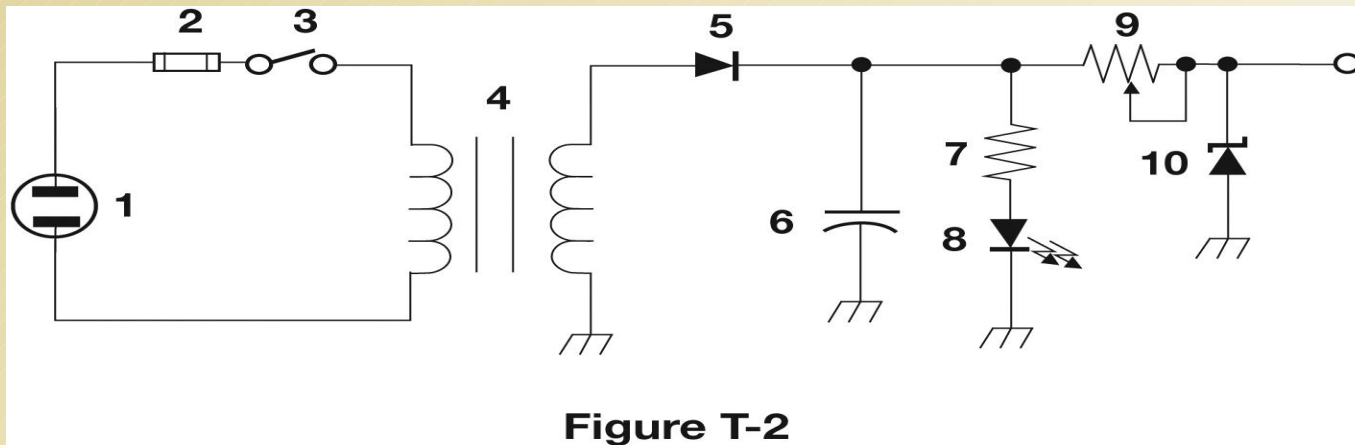
- A. Resistor
- B. Inductor
- C. Regulator IC
- D. Light emitting diode**



# T6C08

What is component 9 in figure T2?

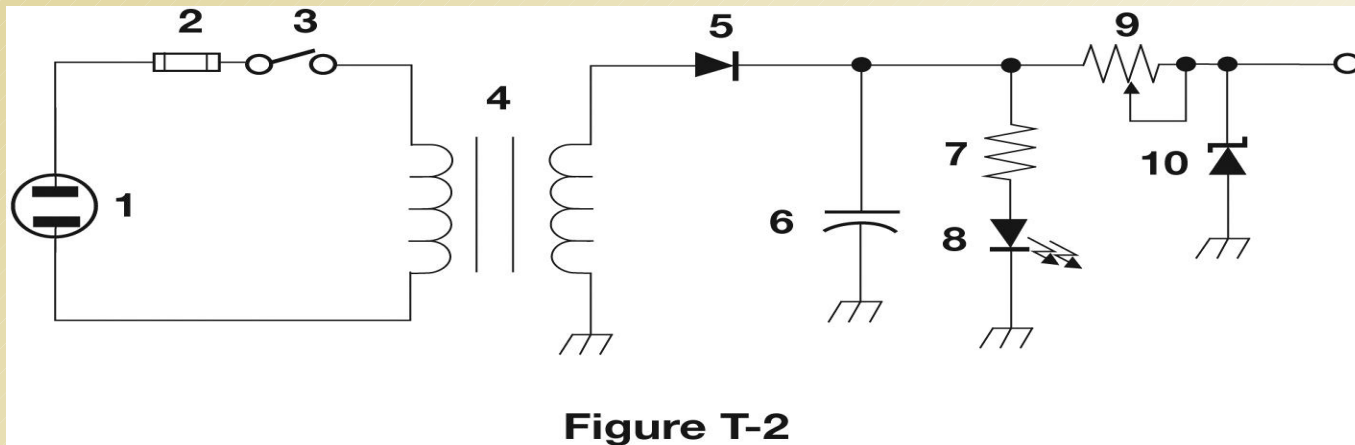
- A. Variable capacitor
- B. Variable inductor
- C. Variable resistor
- D. Variable transformer



# T6C08

What is component 9 in figure T2?

- A. Variable capacitor
- B. Variable inductor
- C. Variable resistor**
- D. Variable transformer



# T6C10

What is component 3 in figure T3?

- A. Connector
- B. Meter
- C. Variable capacitor
- D. Variable inductor

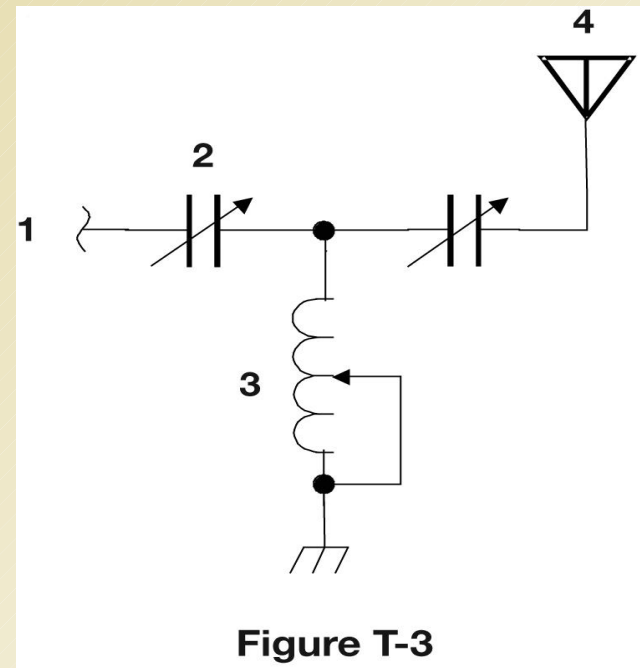


Figure T-3





# T6C10

What is component 3 in figure T3?

- A. Connector
- B. Meter
- C. Variable capacitor
- D. Variable inductor**

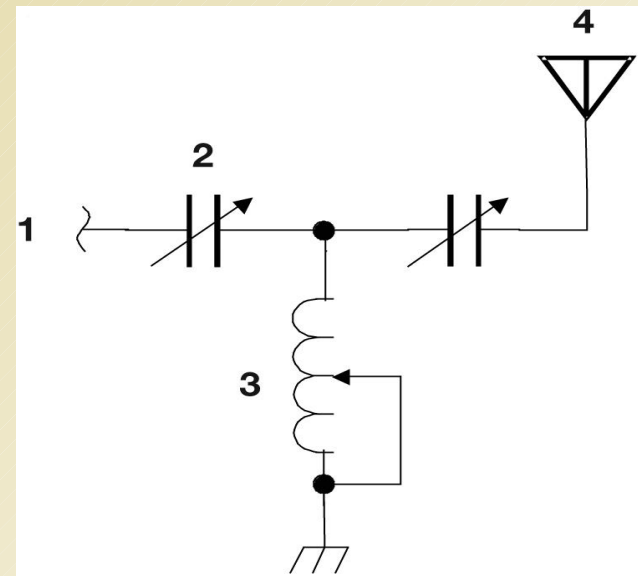


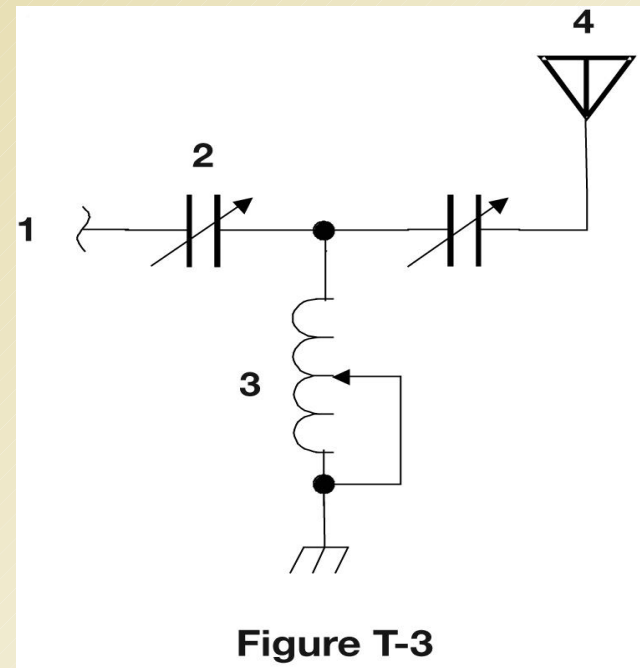
Figure T-3



# T6C11

What is component 4 in figure T3?

- A. Antenna
- B. Transmitter
- C. Dummy load
- D. Ground



# T6C11

What is component 4 in figure T3?

- A. Antenna
- B. Transmitter
- C. Dummy load
- D. Ground

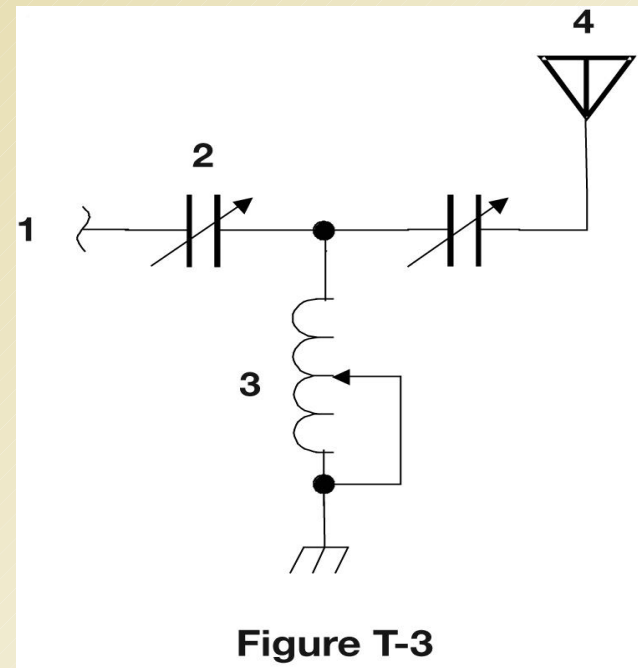


Figure T-3



# T6D11

Which of the following is a resonant or tuned circuit?

- A. An inductor and a capacitor in series or parallel
- B. A linear voltage regulator
- C. A resistor circuit used for reducing standing wave ratio
- D. A circuit designed to provide high-fidelity audio



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# T6D11

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- A. An inductor and a capacitor in series or parallel**
- B. A linear voltage regulator
- C. A resistor circuit used for reducing standing wave ratio
- D. A circuit designed to provide high-fidelity audio



# T6D08

Which of the following is combined with an inductor to make a tuned circuit?

- A. Resistor
- B. Zener diode
- C. Potentiometer
- D. Capacitor



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# T6D08

Which of the following is combined with an inductor to make a tuned circuit?

- A. Resistor
- B. Zener diode
- C. Potentiometer
- D. Capacitor**





A non-profit initiative by the IEEE and ARDC to increase the numbers of youth (12-18) and non-males in Amateur Radio. Participants earn FCC licenses and receive free 2-way radios.

For MORE information: [n2re.org/m-o-r-e-project](http://n2re.org/m-o-r-e-project)  
Dr. Rebecca Mercuri, Grant Administrator, [rtmercuri@ieee.org](mailto:rtmercuri@ieee.org)



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