

TRANSISTOR TECHNIQUES



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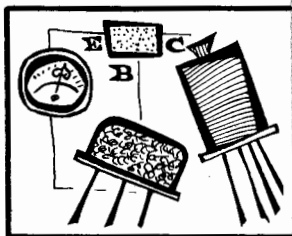
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contents

chapter

page

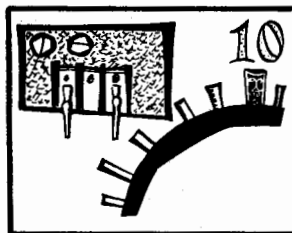


1

Protecting transistors

Construction of a control panel for testing transistors. Current drain. Operating values. Effect of temperature. Protecting transistor leads. Battery Polarity. Layout board. Technique used to identify transistors. Simple resistance measurements on transistors. Current limitations.

9



2

Testing transistors

Current gain. Alpha. Beta. Basic operation of grounded base and grounded emitter circuits. Junction transistor checker. Calibration and use of transistor checker. Transistor checker test patterns. Testing transistors with an ohmmeter. Transistor check circuit. Transistor check procedures.

17

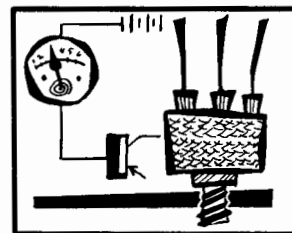


3

Transistor performance

Stabilizing the transistor. Current and voltage feedback. Collector load line. Low-frequency transistor circuits. Alpha and beta cutoff. The tetrode transistor. Measuring tetrode transistor dc characteristics. Measuring small-signal current gain tetrodes. Tetrode amplifier. Tetrode oscillator.

33

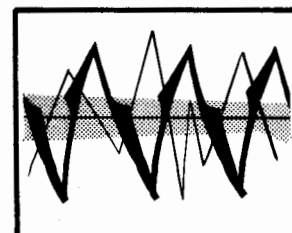


4

Transistor measurements

Transistor characteristics. Leakage current. Current gain. Output impedance. Test Methods. Measuring dc leakage. Incremental dc current gain. Germanium junction transistors. Transistor noise. Duality. Output impedance. Power transistors. Silicon junction transistors.

45

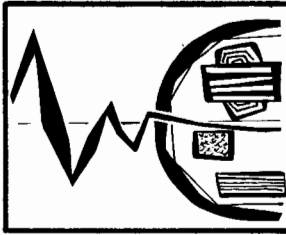


5

Oscillators and triggers

Analogous vacuum-tube and transistor circuits. Phase inversion. Transistorized multivibrator. Two-terminal sine-wave generator. Combined multivibrator and sine-wave generator. Trigger circuits. Bistable multivibrator. One-shot multivibrator. Blocking oscillator.

59

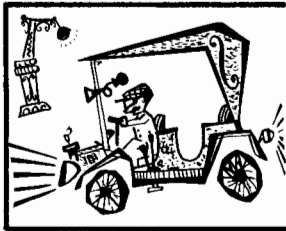


6

Transistor dc transformer

Advantage of the dc transformer. How a dc transformer functions. Schematic of the transistorized dc transformer. Load tests. Optimum output power. Ripple. Filtering the ripple. Applications of the dc voltage multiplier.

71

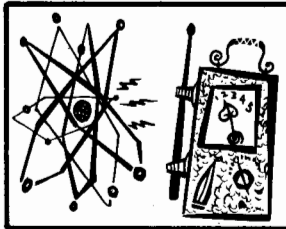


7

Auto-light control

Automation of automobile headlights, parking lights, tail and dash lights. Schematic for transistor auto-light control. Relay operation. Control box assembly. Circuit components. Characteristics of the CK722. Wiring of the light control box. Mounting the selenium photocell.

77



8

Geiger counter

Circuit operation of the transistorized geiger counter. Construction details. Need for voltage regulation. Polarity of the G-M tube. Rebuilding the transformer. Using the Geiger counter. Underchassis view showing the major parts. Expected operating life of the unit.

87

Index

93