

Name _____
Date _____
Instructor _____

EXPERIMENT

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Bipolar Junction Transistor (BJT) Characteristics

OBJECTIVES

1. To determine transistor type (*npn*, *pnp*), terminals, and material using a digital multimeter (DMM).
2. To graph the collector characteristics of a transistor using experimental methods and a curve tracer.
3. To determine the value of the alpha and beta ratios of a transistor.

EQUIPMENT REQUIRED

Instruments

DMM
Curve tracer (if available)

Components

Resistors

(1) 1-k Ω
(1) 330-k Ω
(1) 5-k Ω potentiometer
(1) 1-M Ω potentiometer

Transistors

(1) 2N3904 (or equivalent)
(1) Transistor without terminal identification

Supplies

DC power supply

