



6AK5

6AK5

SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

Useful at frequencies up to 400 Mc

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage. 6.3 ac or dc volts

Current. 0.175 amp

Direct Interelectrode Capacitances:

| | Without External Shield | With External Shield ^o | |
|--|-------------------------------|---|---------------|
| Grid No.1 to plate | 0.03 max. | 0.02 max. | μf |
| Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater | 4 | 4 | μf |
| Plate to cathode & grid No.3 & internal shield, grid No.2, and heater | 2.1 | 2.8 | μf |

Characteristics, Class A₁ Amplifier:

| | | | |
|--|------|------|------------------|
| Plate Voltage. | 120 | 180 | volts |
| Grid-No.2 (Screen) Voltage | 120 | 120 | volts |
| Cathode-Bias Resistor. | 180 | 180 | ohms |
| Plate Resistance (Approx.) | 0.30 | 0.50 | megohm |
| Transconductance | 5000 | 5100 | μmhos |
| Plate Current. | 7.5 | 7.7 | ma |
| Grid-No.2 Current. | 2.5 | 2.4 | ma |
| Grid-No.1 Voltage (Approx.) for plate current of 10 μamp | -8.5 | -8.5 | volts |

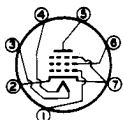
Mechanical:

| | |
|--|---|
| Mounting Position. | Any |
| Maximum Overall Length | 1-3/4" |
| Maximum Seated Length. | 1-1/2" |
| Length, Base Seat to Bulb Top (Excluding tip). | 1-1/8" \pm 3/32" |
| Maximum Diameter | 3/4" |
| Dimensional Outline. | See General Section |
| Bulb | T-5-1/2 |
| Base | Small-Button Miniature 7-Pin (JETEC No. E7-1) |
| Basing Designation for BOTTOM VIEW | 7BD |

Pin 1-Grid No.1

Pin 2-Cathode,
Grid No.3,
Internal
Shield

Pin 3-Heater



Pin 4-Heater

Pin 5-Plate

Pin 6-Grid No.2

Pin 7-Same as
Pin 2

^o With external shield JETEC No.316 connected to cathode.

← Indicates a change.

6AK5



6AK5

SHARP-CUTOFF PENTODE

AMPLIFIER - Class A₁

→ **Maximum Ratings, Design-Center Values:**

| | |
|---|--|
| PLATE VOLTAGE. | 180 max. volts |
| GRID-No.2 (SCREEN) SUPPLY VOLTAGE. | 180 max. volts |
| GRID-No.2 VOLTAGE. | See Grid-No.2 Input Rating Chart at front of Receiving Tube Section |
| GRID-No.1 (CONTROL-GRID) VOLTAGE: | |
| Positive bias value. | 0 max. volts |
| PLATE DISSIPATION. | 1.7 max. watts |
| GRID-No.2 INPUT: | |
| For grid-No.2 voltages up to 90 volts. | 0.5 max. watt |
| For grid-No.2 voltages between 90 and 180 volts. | See Grid-No.2 Input Rating Chart at front of Receiving Tube Section |
| CATHODE CURRENT. | 18 max. ma |
| PEAK HEATER-CATHODE VOLTAGE: | |
| Heater negative with respect to cathode. | 120 max. volts |
| Heater positive with respect to cathode. | 120 max. volts |

→ indicates a change.

SEPT. 1, 1955

DATA



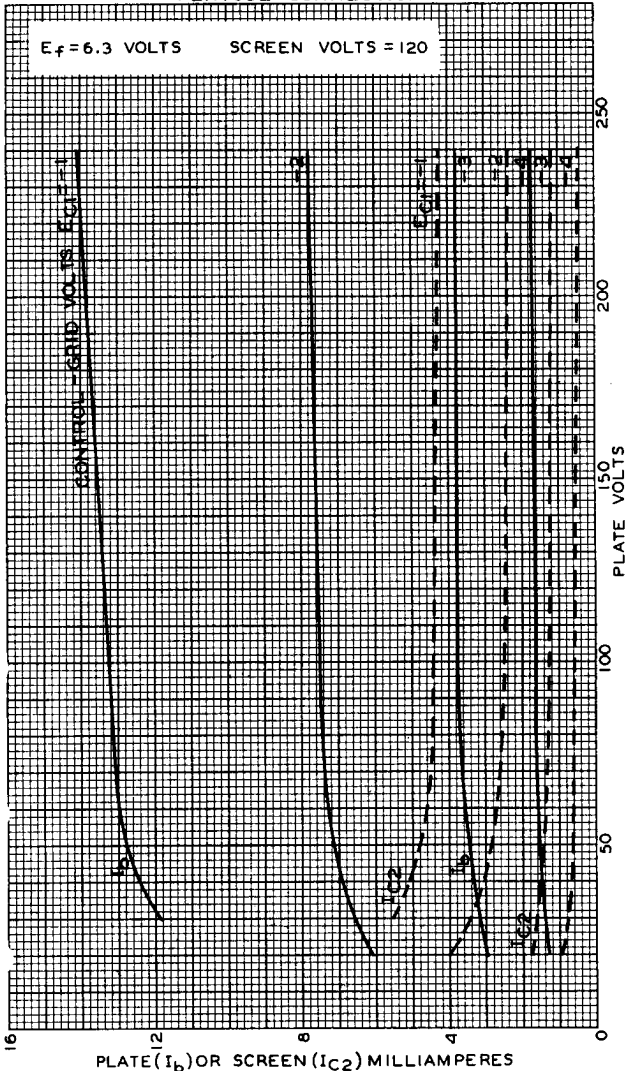
6AK5

AVERAGE PLATE CHARACTERISTICS PENTODE CONNECTION

6AK5

$E_f = 6.3$ VOLTS

SCREEN VOLTS = 120



FEB. 15, 1945

RCA VICTOR DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6504

6AK5

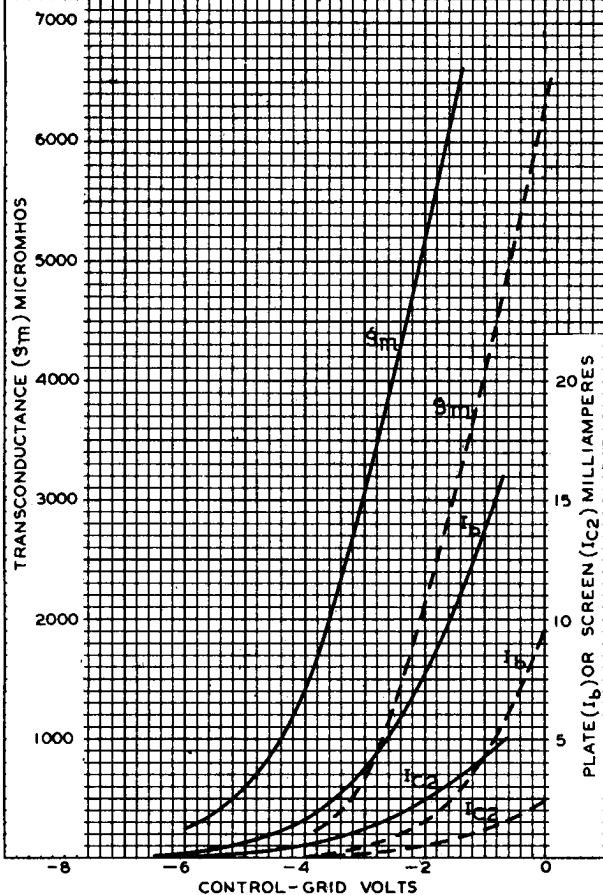


6AK5

AVERAGE CHARACTERISTICS PENTODE CONNECTION

 $E_f = 6.3$ VOLTS

| CURVES | SCREEN VOLTS | PLATE VOLTS |
|--------|--------------|-------------|
| — | 120 | 180 |
| - - - | 75 | 180 |



FEB. 19, 1945

 RCA VICTOR DIVISION
 RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6505