



6AK5

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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

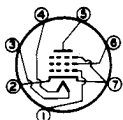
Mechanical:

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" ±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.

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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



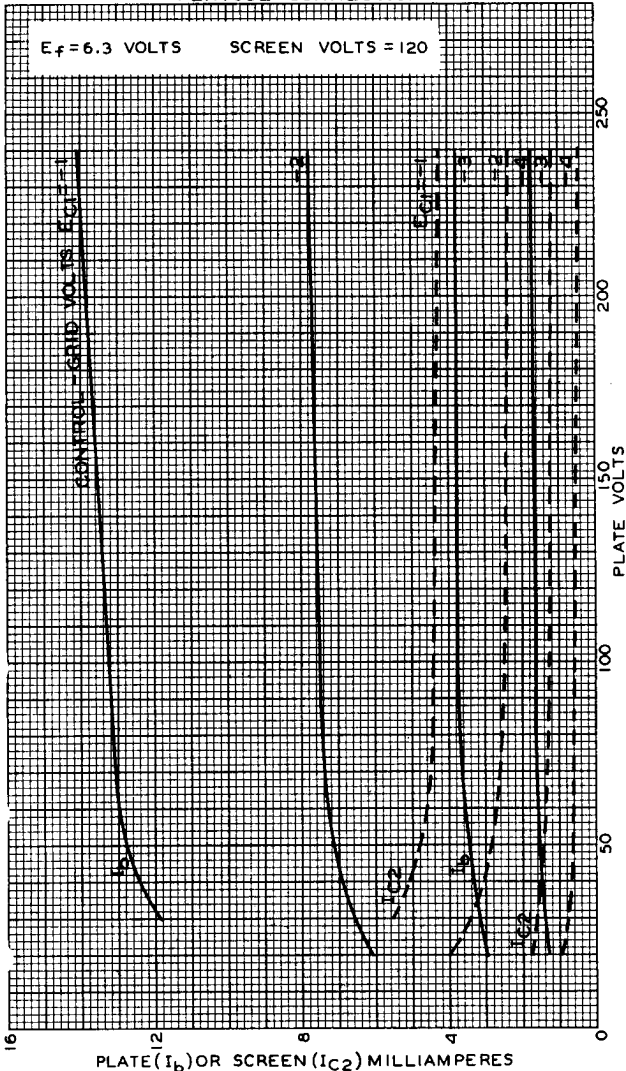
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AVERAGE PLATE CHARACTERISTICS PENTODE CONNECTION

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$E_f = 6.3$ VOLTS

SCREEN VOLTS = 120



FEB. 15, 1945

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

92CM-6504

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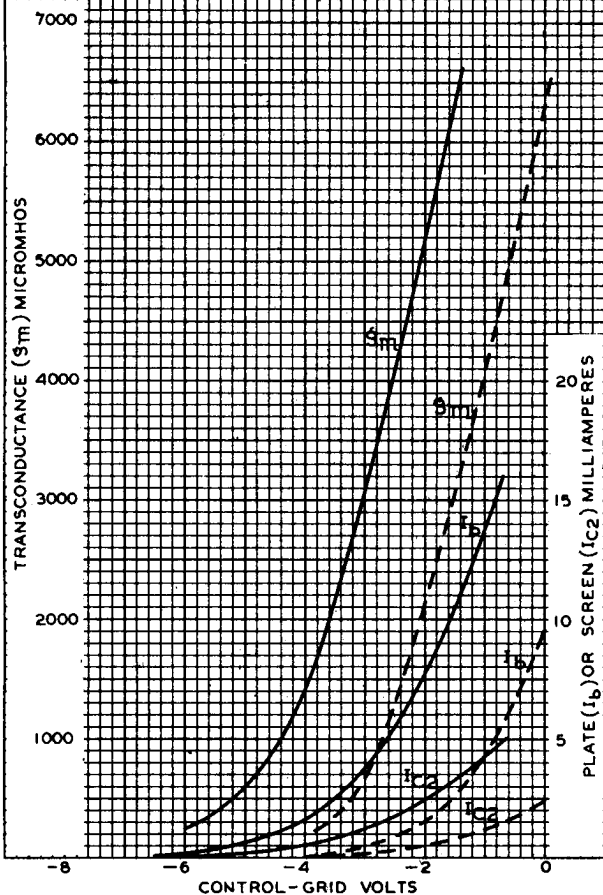


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AVERAGE CHARACTERISTICS PENTODE CONNECTION

 $E_f = 6.3$ VOLTS

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



FEB. 19, 1945

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

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