



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:

	<i>Without External Shield</i>	<i>With External Shield<sup>0</sup></i>	
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 A<sub>1</sub> 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 4-Heater
Pin 2-Cathode,		Pin 5-Plate
Grid No.3,		Pin 6-Grid No.2
Internal		Pin 7-Same as
Shield		Pin 2
Pin 3-Heater		

<sup>0</sup> with external shield JETEC No.316 connected to cathode.

← Indicates a change.

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#### AMPLIFIER - Class A<sub>1</sub>

→ **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