



6CB6-A

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SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

With heater having controlled warm-up time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage.	6.3	ac or dc volts
Current.	$0.3 \pm 6\%$	amp
Warm-up time (Average)	11	sec

For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.

Direct Interelectrode Capacitances:

	Without External Shield	With External Shield ^o	
Grid No.1 to plate.	0.025 max.	0.015 max.	$\mu\mu\text{f}$
Grid No.1 to cathode & internal shield & grid No.3, grid No.2, and heater.	6.5	6.5	$\mu\mu\text{f}$
Plate to cathode & internal shield & grid No.3, grid No.2, and heater.	2	3	$\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier:

Plate-Supply Voltage.	125	125	volts
Grid No.3	♦	♦	
Grid-No.2 Supply Voltage.	125	125	volts
Grid-No.1 Voltage	-3	-	volts
Cathode Resistor.	-	56	ohms
Plate Resistance (Approx.).	-	0.28	megohm
Transconductance.	-	8000	μmhos
Plate Current	2.8	13	ma
Grid-No.2 Current	-	3.7	ma
Grid-No.1 Voltage (Approx.) for plate $\mu\text{a} = 20$	-	-6.5	volts

Mechanical:

Operating Position.	Any
Maximum Overall Length.	2-1/8"
Maximum Seated Length	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip).	1-1/2" $\pm$ 3/32"
Diameter.	0.650" to 0.750"
Dimensional Outline	See General Section
Bulb.	T5-1/2
Base.	Small-Button Miniature 7-Pin (JEDEC No.E7-1)

o, ♦: See next page.

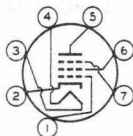


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Basing Designation for Bottom View. 7CM

Pin 1-Grid No.1
 Pin 2-Cathode
 Pin 3-Heater
 Pin 4-Heater
 Pin 5-Plate



Pin 6-Grid No.2
 Pin 7-Grid No.3,
 Internal
 Shield

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE	330 max.	volts
GRID-No.3 (SUPPRESSOR-GRID) VOLTAGE . .	0 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE.	330 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
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GRID-No.2 INPUT:

For grid-No.2 voltages up to 165 volts.	0.55 max.	watt
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For grid-No.2 voltages between 165 and 330 volts	See Grid-No.2 Input	
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Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION	2.3 max.	watts
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PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode.	200 max.	volts
Heater positive with respect to cathode.	200 [▲] max.	volts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation.	0.25 max.	megohm
For cathode-bias operation.	1 max.	megohm

O With external shield JEDEC No.316 connected to cathode.

◆ Connected to cathode at socket.

▲ The dc component must not exceed 100 volts.



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AVERAGE CHARACTERISTICS

$E_f=6.3$ VOLTS
GRID N^o3 CONNECTED TO
CATHODE AT SOCKET.
GRID-N^o2 VOLTS=125

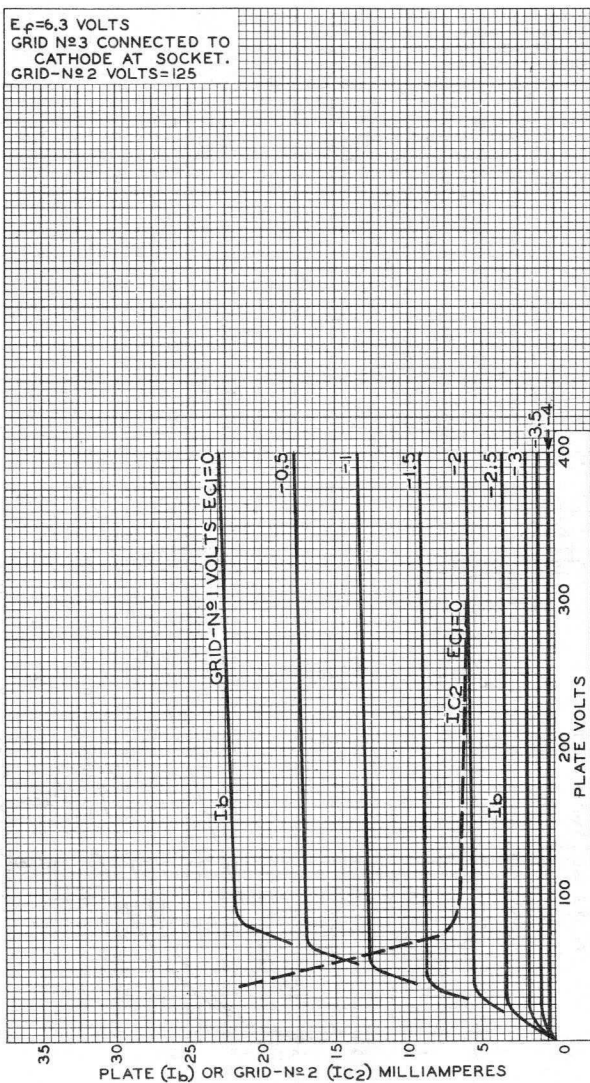


PLATE (I_b) OR GRID-N^o2 (I_{C2}) MILLIAMPERES

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AVERAGE CHARACTERISTICS

$E_f = 6.3$ VOLTS
 PLATE VOLTS = 125
 GRID N°3 CONNECTED TO
 CATHODE AT SOCKET.
 GRID-N°2 VOLTS = 125

