

Sharp-Cutoff Pentode

7-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC)	6.3 ^a	6.3 ± 0.6	volts
Current	0.450 ± 0.030	0.450 ^b	amp
Warm-up time (Average) . . .	11	—	sec

Peak heater-cathode voltage:

Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 ^c	max.	volts

Direct Interelectrode Capacitances:^d

Grid No.1 to plate.	0.006	max.	μf
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater.	8.8		μf
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater.	5.2		μf

Characteristics, Class A₁ Amplifier:

Plate Supply Voltage.	75	150	volts
Grid No.3	Connected to cathode at socket		
Grid-No.2 Supply Voltage.	75	75	volts
Grid-No.1 Supply Voltage.	0	0	volts
Cathode Resistor.	68	68	ohms
Amplification Factor ^e	50	—	
Plate Resistance (Approx.)	—	0.5	megohm
Transconductance.	—	9500	μmhos
Plate Current	—	8.8	ma
Grid-No.2 Current	—	2.8	ma
Grid-No.1 Voltage (Approx.) for plate μa = 20	—	—	—4 volts

Mechanical:

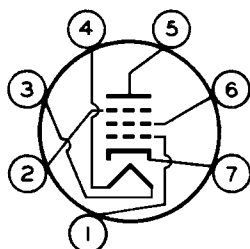
Operating Position.	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length.	2-1/8"
Maximum Seated Length	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip) . . .	1-1/2" ± 3/32"
Diameter.	0.650" to 0.750"
Dimensional Outline	See <i>General Section</i>
Bulb.	T5-1/2
Base.	Small-Button Miniature 7-Pin (JEDEC No.E7-1)



6HS6

Basing Designation for BOTTOM VIEW. 7BK

Pin 1—Grid No.1
Pin 2—Grid No.3,
Internal
Shield
Pin 3—Heater



Pin 4—Heater
Pin 5—Plate
Pin 6—Grid No.2
Pin 7—Cathode

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE. 300 max. volts
GRID No.3 (SUPPRESSOR GRID). . . *Connect to cathode at socket*
GRID-No.2 (SCREEN-GRID)
SUPPLY VOLTAGE. 300 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:
Negative-bias value. 50 max. volts
Positive-bias value. 0 max. volts
GRID-No.2 INPUT:
For grid-No.2 voltages up to 150 volts . . . 1 max. watt
For grid-No.2 voltages between 150 and
300 volts. See *Grid-No.2 Input Rating*
Chart at front of Receiving Tube Section
PLATE DISSIPATION. 3 max. watts

Maximum Circuit Values:

Grid-No.1—Circuit Resistance:

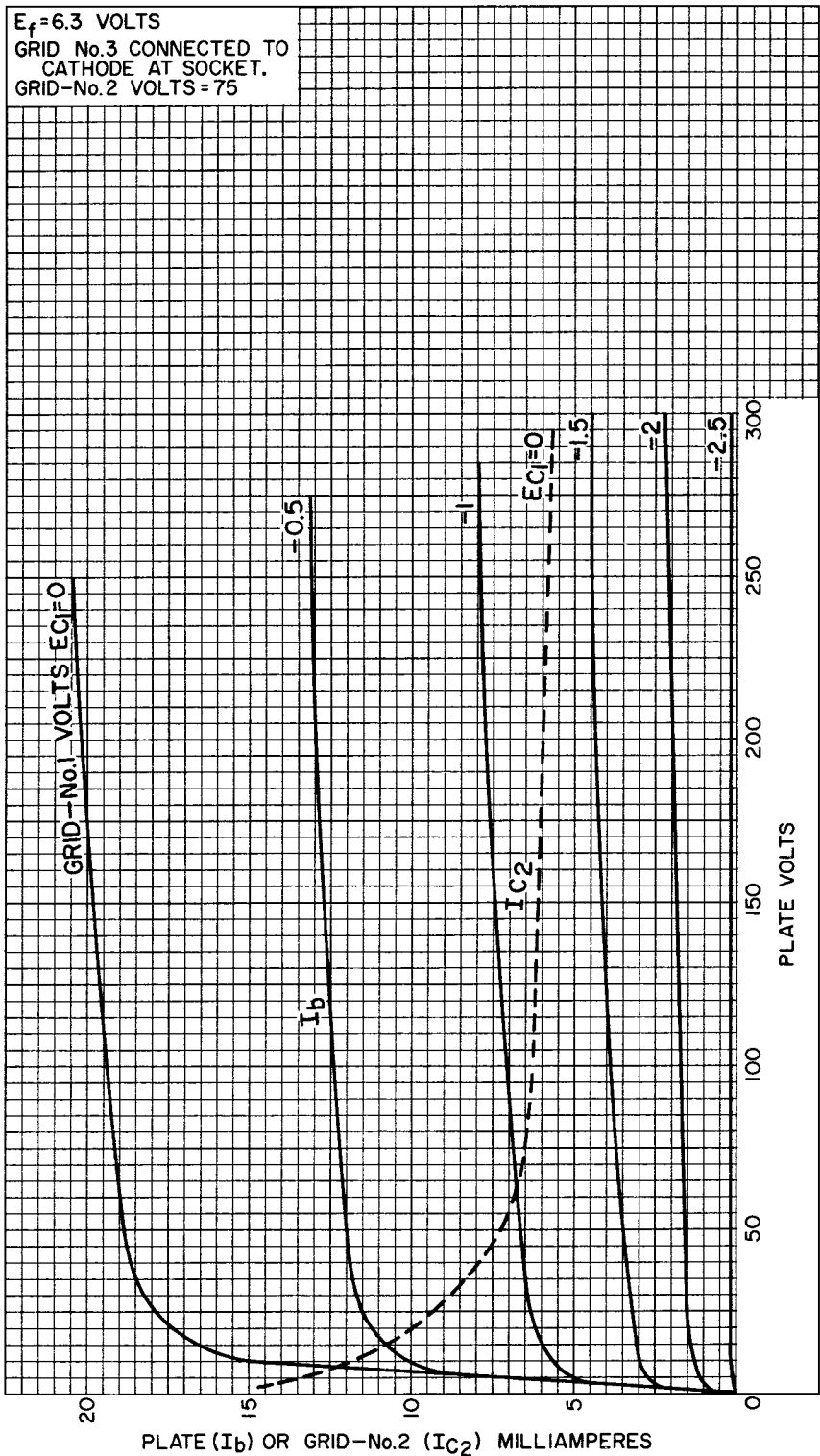
For fixed-bias operation 0.5 max. megohm
For cathode-bias operation 1 max. megohm

- ^a At heater amperes = 0.450.
- ^b At heater volts = 6.3.
- ^c The dc component must not exceed 100 volts.
- ^d Without external shield.
- ^e Triode connection (Grid No.2 connected to plate).



AVERAGE CHARACTERISTICS

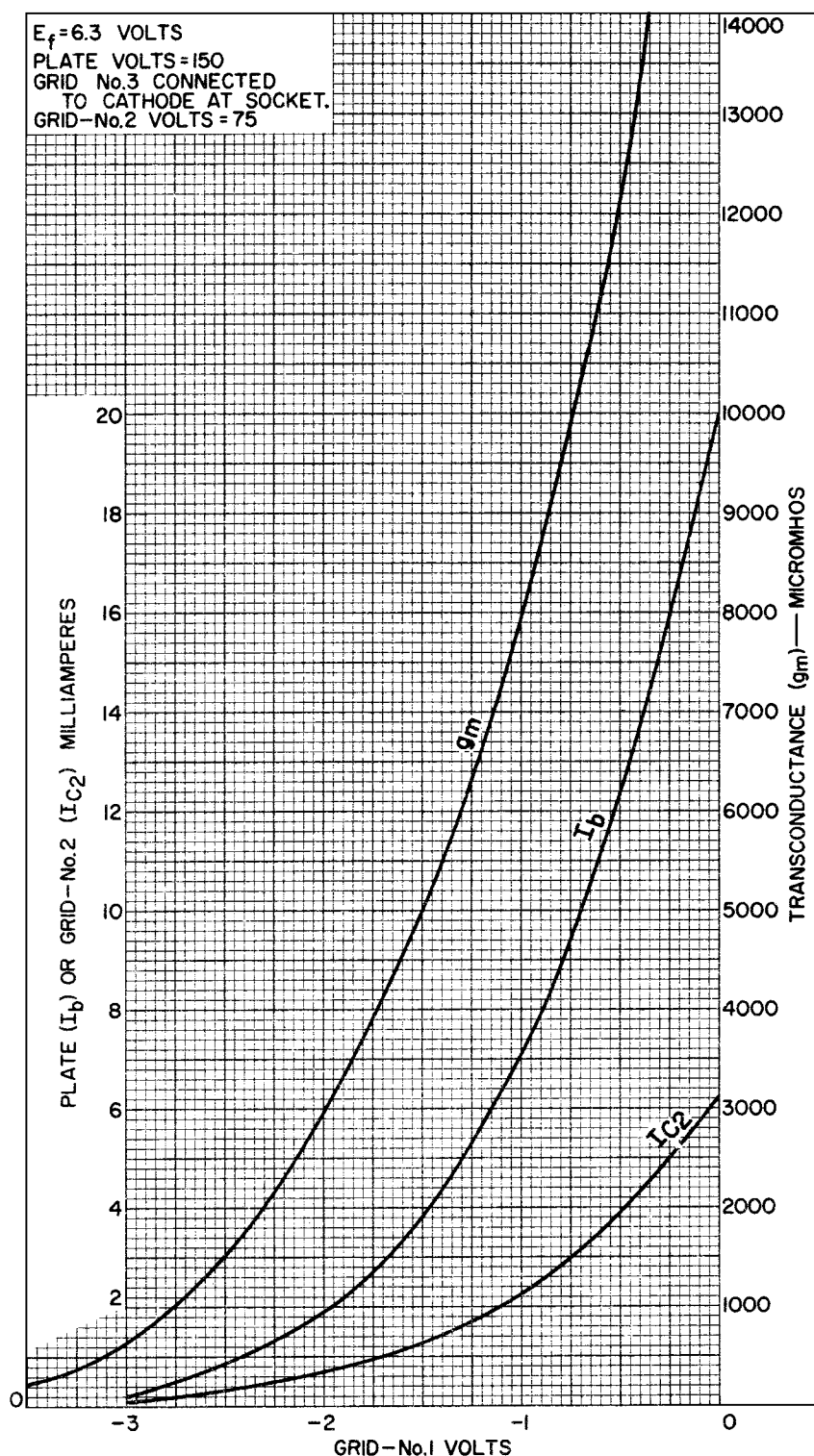
$E_f = 6.3$ VOLTS
 GRID No.3 CONNECTED TO
 CATHODE AT SOCKET.
 GRID-No.2 VOLTS = 75



92CM-11483



AVERAGE CHARACTERISTICS



92CM-11484