



12CA5

12CA5

BEAM POWER TUBE

MINIATURE TYPE

*Intended for use in equipment having
series heater-string arrangement***GENERAL DATA****Electrical:**

Heater, for Unipotential Cathode:

Voltage.	12.6	ac or dc volts
Current.	0.6	amp
Warm-up time (Average)	11	sec

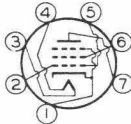
*For definition of heater warm-up time and method of determining
it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of
this Section.*Direct Interelectrode Capacitances (Approx.):^o

Grid No.1 to plate	0.5	μf
Grid No.1 to cathode & grid No.3, grid No.2, and heater.	15	μf
Plate to cathode & grid No.3, grid No.2, and heater.	9	μf

Mechanical:

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

Pin 1-Cathode,
Grid No.3
Pin 2-Grid No.1
Pin 3-Heater



Pin 4-Heater
Pin 5-Grid No.1
Pin 6-Grid No.2
Pin 7-Plate

AMPLIFIER - Class A₁**Maximum Ratings, Design-Center Values:**

PLATE VOLTAGE.	130 max.	volts
GRID-No.2 (SCREEN) VOLTAGE	130 max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Positive bias value.	0 max.	volts
PLATE DISSIPATION.	5 max.	watts
GRID-No.2 INPUT.	1.4 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	200 max.	volts
Heater positive with respect to cathode.	200 [▲] max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)	180 max.	^o C

^o without external shield.[▲] The dc component must not exceed 100 volts.

MAR. 1, 1955

TUBE DIVISION

TENTATIVE DATA

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

12CA5



12CA5

BEAM POWER TUBE

Typical Operation and Characteristics:

Plate Voltage.	110	125	volts
Grid-No.2 Voltage.	110	125	volts
Grid-No.1 Voltage.	-4	-4.5	volts
Peak AF Grid-No.1 Voltage.	4	4.5	volts
Zero-Signal Plate Current.	32	37	ma
Max.-Signal Plate Current.	31	36	ma
Zero-Signal Grid-No.2 Current.	3.5	4	ma
Max.-Signal Grid-No.2 Current.	7.5	11	ma
Plate Resistance (Approx.)	16000	15000	ohms
Transconductance	8100	9200	μ mhos
Load Resistance.	3500	4500	ohms
Total Harmonic Distortion.	5	6	%
Max.-Signal Power Output	1.1	1.5	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

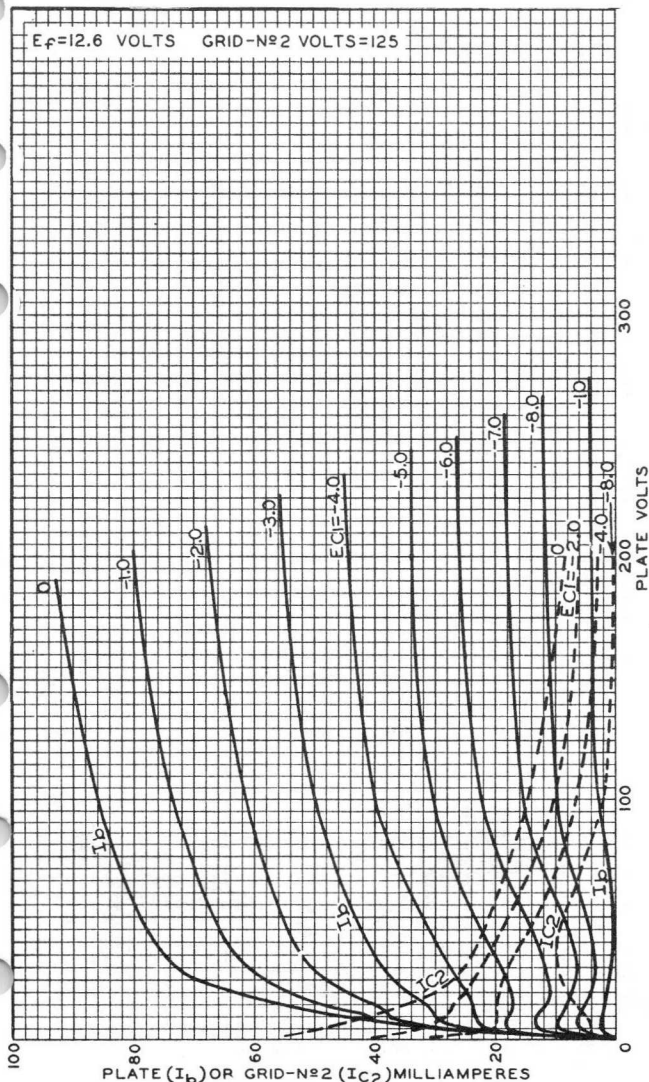
For fixed-bias operation	0.1 max. megohm
For cathode-bias operation	0.5 max. megohm



12CA5

12CA5

AVERAGE PLATE CHARACTERISTICS



JAN. 24, 1955

TUBE DIVISION

92CM-8507

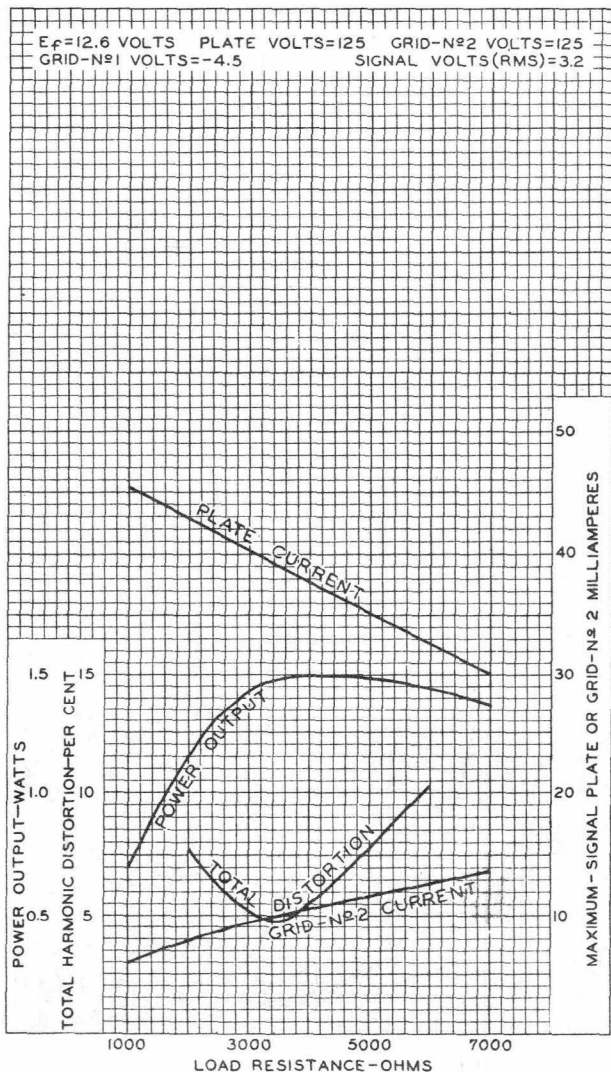
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

12CA5



12CA5

OPERATION CHARACTERISTICS



JAN. 20, 1955

TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-8506RI