



5890

5890

REMOTE-CUTOFF BEAM PENTODE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage.	6.3	ac or dc	volts
Current.	0.6		amp

Mu-Factor, Grid No.2 to

Grid No.1 5

Direct Interelectrode Capacitances:

Grid No.1 to Plate	0.018	$\mu\mu\text{f}$
Input.	7.5	$\mu\mu\text{f}$
Output	1.6	$\mu\mu\text{f}$

Mechanical:

Mounting Position.	Any
Overall Length	6-1/2" $\pm$ 1/4"
Seated Length.	6" $\pm$ 1/4"
Maximum Diameter	1-1/2"
Cap.	Small
Base	Small-Shell Duodecal 7-Pin
Basing Designation for BOTTOM VIEW	12J

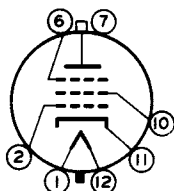
Pin 1-Heater

Pin 2-Grid No.1

Pin 6-Grid No.3

Pin 7-Internal Con.-

Do Not Use



Pin 10-Grid No.2

Pin 11-Cathode

Pin 12-Heater

Cap-Plate

Bulb Temperature	220 max.	$^{\circ}\text{C}$
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VOLTAGE-CONTROL SERVICE

Maximum CCS* Ratings, Absolute Values:

DC PLATE VOLTAGE	30000 max.	volts
DC GRID-No.3 VOLTAGE	6600 max.	volts
DC GRID-No.2 VOLTAGE	450 max.	volts

DC GRID-No.1 VOLTAGE:

Negative bias value.	-200 max.	volts
Positive bias value.	0 max.	volts
Positive peak value.	2 max.	volts

MAX.-SIGNAL DC PLATE VOLTAGE	500 max.	volts
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MAX.-SIGNAL GRID-No.3 INPUT.	1 max.	watt
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MAX.-SIGNAL GRID-No.2 INPUT.	0.1 max.	watt
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PLATE DISSIPATION.	10 max.	watts
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PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode:

During equipment warm-up period

not exceeding 15 seconds 450 max. volts

After equipment warm-up period

165 max. volts

Heater positive with respect to cathode. 165 max. volts

* : See next page.

MAY 1, 1950

TUBE DEPARTMENT

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA



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Typical Operation as Shunt Voltage-

Regulator Tube in Accompanying Circuit

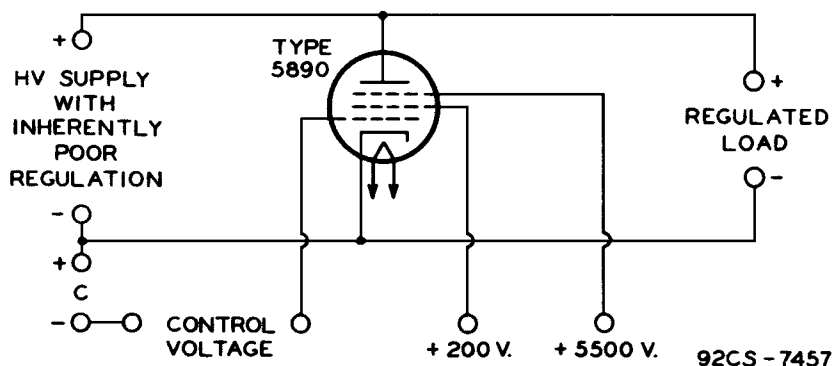
DC Plate Voltage.	20000	30000	volts
DC Grid-No.3 Voltage.	5500	5500	volts
DC Grid-No.2 Voltage*.	200	200	volts
DC Grid-No.1 Voltage**.	-60	-60	volts
Peak Grid-No.1 Voltage.	45	20	volts
Zero-Sig. DC Plate Cur.	0	0	μ amp
Max.-Sig. DC Plate Cur.	500	60	μ amp
Zero-Sig. DC Grid-No.3 Cur.	0	0	μ amp
Max.-Sig. DC Grid-No.3 Cur.	0	0	μ amp
Zero-Sig. DC Grid-No.2 Cur.	0	0	μ amp
Max.-Sig. DC Grid-No.2 Cur.	0	0	μ amp
Grid-No.1 Bias (Approx.) for plate current of 10 μ amp.	-52	-52	volts
Grid-No.1—Plate Transconductance	11	3	μ hos

• Continuous Commercial Service.

* Subject to variation of $\pm 40\%$ if grid-No.1 voltage is desired at indicated value.

** Subject to variation of $\pm 40\%$ if grid-No.2 voltage is desired at indicated value.

Shunt Voltage-Regulator Circuit



NOTE: THE CONTROL VOLTAGE MAY BE TAKEN FROM THE LOAD CIRCUIT OR FROM A CIRCUIT SUPPLYING SIGNAL TO THE LOAD CIRCUIT, DEPENDING ON THE TYPE OF LOAD INVOLVED.

OPERATING NOTES

Operation of the 5890 with a plate voltage above approximately 16000 volts results in the production of soft x-rays which can constitute a health hazard on prolonged exposure unless the tube is adequately shielded. Relatively simple shielding should prove adequate, but the need for this precaution should be considered in equipment design.

Devices and arrangements shown or described herein may use patents of RCA or others. Information contained herein is furnished without responsibility by RCA for its use and without prejudice to RCA's patent rights.

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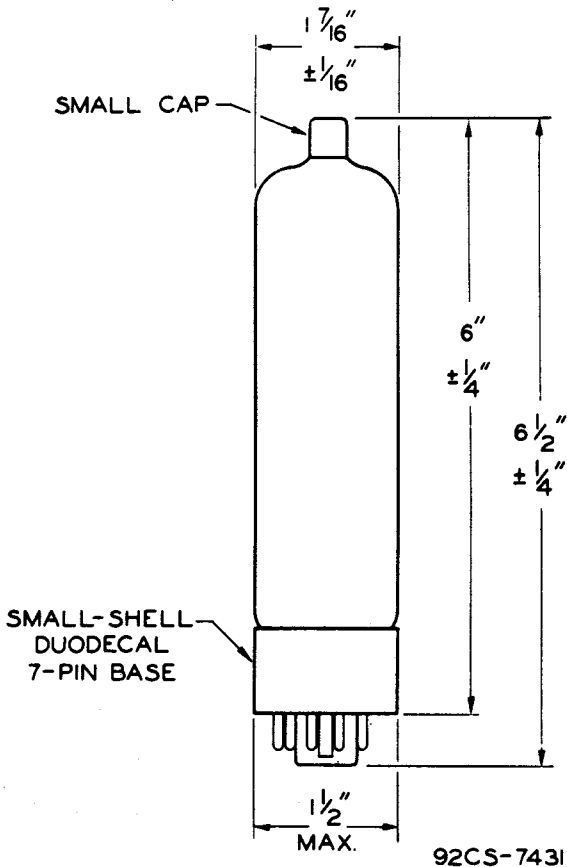
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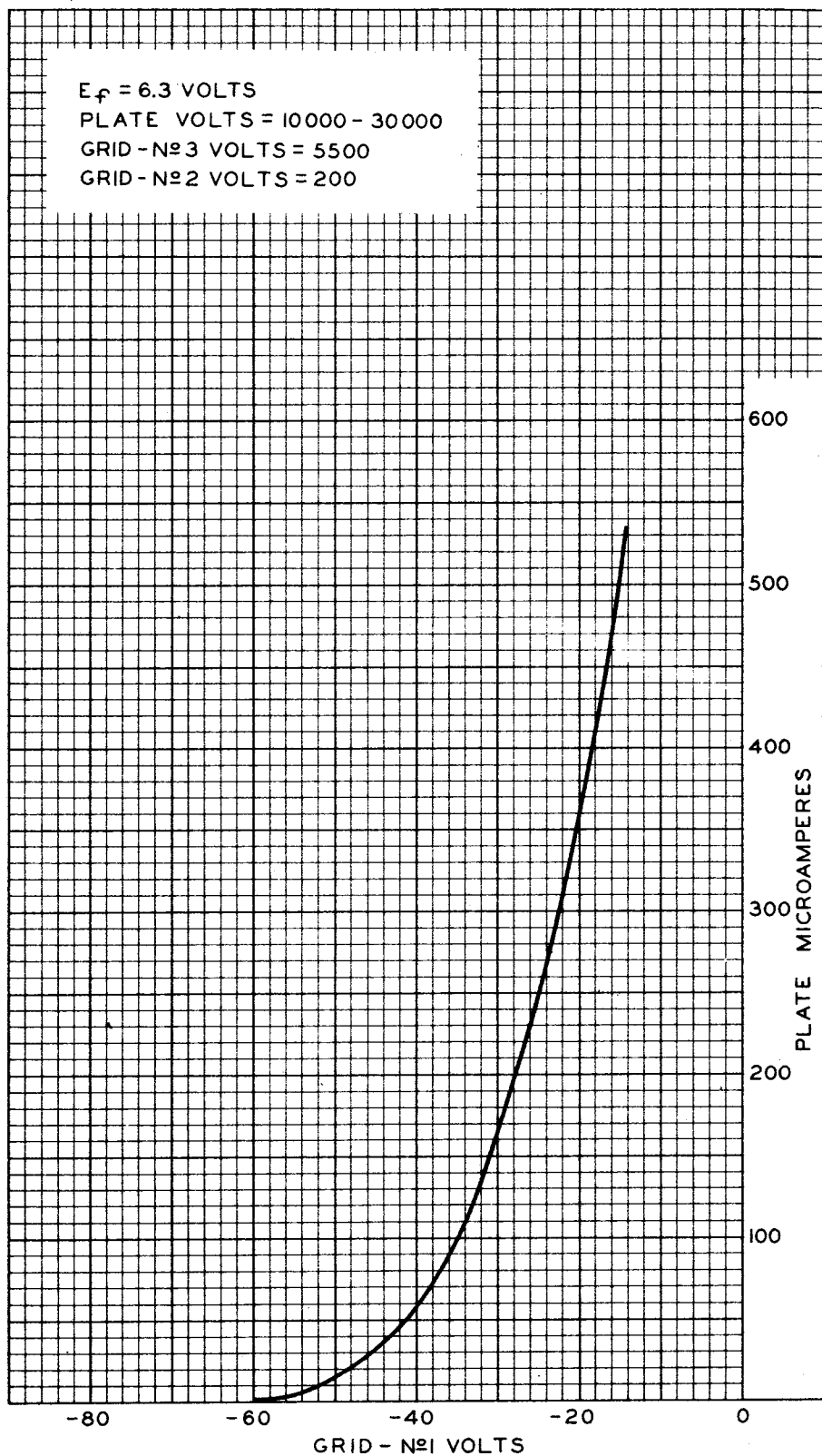


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AVERAGE CHARACTERISTIC



FEB. 9, 1950

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