



715-C

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PULSE AMPLIFIER TETRODE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage	26 $\pm$ 2.5	ac or dc volts
Current	2.1	amp
Minimum Heating Time	3	minutes

Direct Interelectrode Capacitances:⁰

Grid No.1 to Plate	2 max.	μ f
Input	37.5	μ f
Output	7.5	μ f

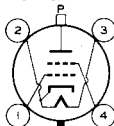
⁰ With no external shield.

Mechanical:

Mounting Position	Vertical, base up or down
Overall Length	5-3/4" $\pm$ 1/8"
Seated Length	5-5/16" $\pm$ 1/8"
Maximum Diameter	2-9/16"
Bulb	T-20
Cap	Medium with Dished Flange
Base	Medium-Ceramic-Wafer Jumboid 4-Pin

BOTTOM VIEW

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



Pin 3-Heater
Pin 4-Grid No.2
Cap - Plate

MODULATOR - Pulsed Rectangular-Wave

With Inductive Load

Maximum CCS* Ratings, Absolute Values:

DC PLATE SUPPLY VOLTAGE*	15000 max. volts
PEAK POSITIVE PLATE VOLTAGE	18000 max. volts
DC GRID-No.2 (SCREEN) SUPPLY VOLTAGE*	1350 max. volts
DC GRID-No.1 (CONTROL GRID) SUPPLY VOLTAGE	-1000 max. volts
PEAK GRID-No.1 VOLTAGE:	
Negative Value	1200 max. volts
Positive Value	300 max. volts
PEAK PLATE CURRENT**, for duty factor ⁰ not exceeding 0.001	15 max. amp

* Continuous Commercial Service.

□ Duty Factor equals product of pulse duration in seconds and the pulse repetition frequency in cycles per second.

** For peak currents in excess of 5 amperes, the product of peak plate current in amperes and pulse duration in microseconds should not exceed 30, and the tube should not be operated longer than 5 microseconds in any 100-microsecond interval.

For peak currents less than 5 amperes, the duty factor is determined by the maximum plate-dissipation rating of 60 watts.

*: See next page.

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TENTATIVE DATA

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PEAK GRID-No.2 CURRENT	5 max.	amp
PEAK GRID-No.1 CURRENT	2 max.	amp
PLATE INPUT	225 max.	watts
GRID-No.2 INPUT	8 max.	watts
GRID-No.1 INPUT	1 max.	watt
PLATE DISSIPATION	60 max.	watts

Typical Operation:*Duty Factor of 0.001*

DC Plate Supply Voltage*	15000	volts
DC Grid-No.2 Supply Voltage*	1250	volts
DC Grid-No.1 Supply Voltage	-800	volts
Peak Positive Grid-No.1 Voltage	+225	volts
Plate Current:		
DC Value	0.015	amp
Peak Value	15	amp
DC Grid-No.2 Current	0.0015	amp
DC Grid-No.1 Current	0.010	amp
Load Resistance	800	ohms

CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

	<u>Note</u>	<u>Min.</u>	<u>Max.</u>	
Heater Current	1	1.9	2.3	amp
Grid-No.1-to-Plate Capacitance	-	-	2	μ mf
Input	-	30	45	μ mf
Output	-	5	10	μ mf

Note 1: With 26 volts on heater.

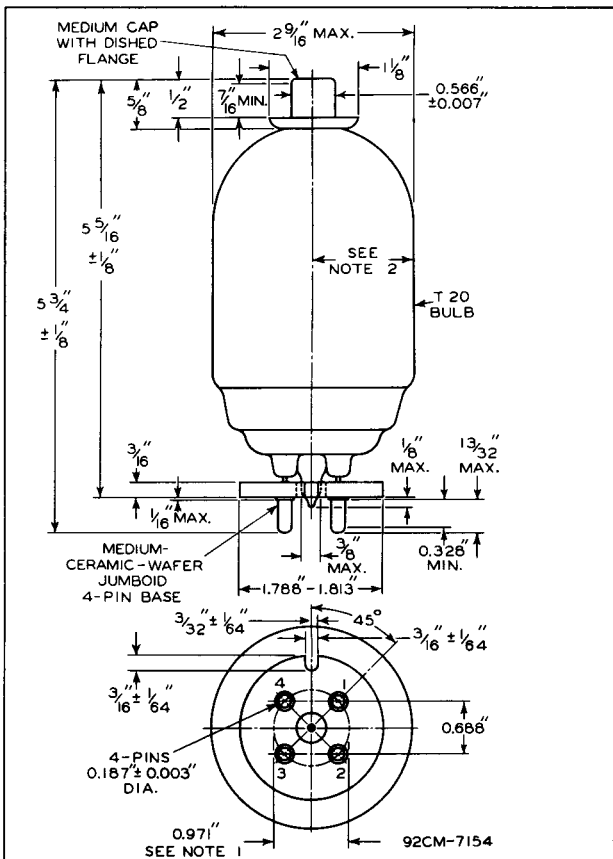
* For tube protection, it is essential that the dc resistance in series with the plate supply and the grid-No.2 supply should be adequate to limit the short-circuit current to 0.5 ampere in either circuit.



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NOTE 1: PINS WILL FIT A FLAT-PLATE GAUGE HAVING THICKNESS OF $\frac{1}{4}$ " AND FOUR HOLES 0.2140 ± 0.0005 " SO LOCATED ON A 0.9710 ± 0.0005 " DIAMETER CIRCLE THAT THE DISTANCE ALONG THE CHORD BETWEEN ANY TWO ADJACENT HOLE CENTERS IS 0.6875 ± 0.0005 ". GAUGE IS ALSO PROVIDED WITH A $\frac{7}{16}$ " DIAMETER HOLE CONCENTRIC WITH PIN CIRCLE FOR THE EXHAUST TIP.

NOTE 2: WHEN TUBE IS ROTATED ABOUT AXIS OF ITS BASE, THE MAXIMUM RADIAL DISTANCE BETWEEN ANY POINT ON THE BULB AND THE ROTATIONAL AXIS DOES NOT EXCEED $1 - \frac{13}{32}$ ".

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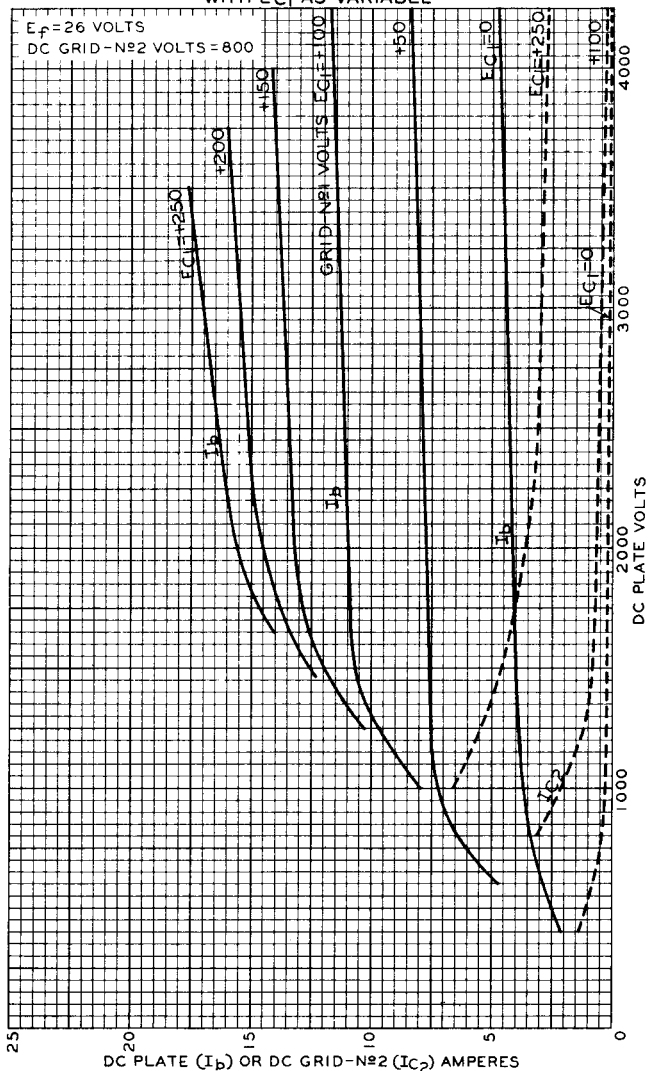
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AVERAGE PLATE CHARACTERISTICS
WITH E_{C1} AS VARIABLE

FEB. 21, 1949

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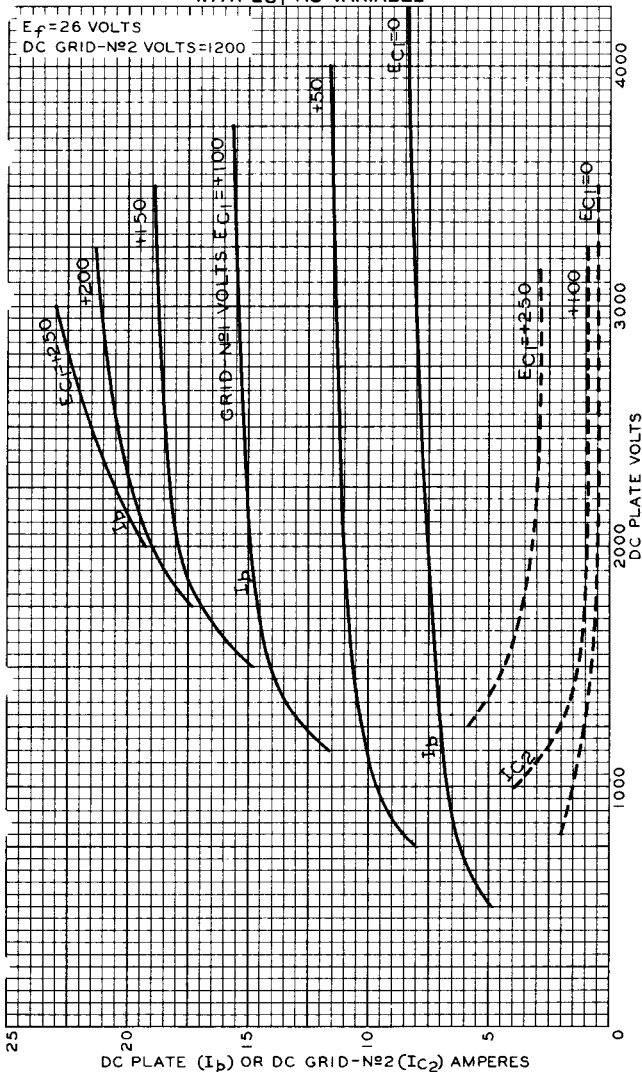
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AVERAGE PLATE CHARACTERISTICS
WITH E_{C1} AS VARIABLE

FEB. 22, 1949

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AVERAGE PLATE CHARACTERISTICS WITH EC_2 AS VARIABLE



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92CM-7190

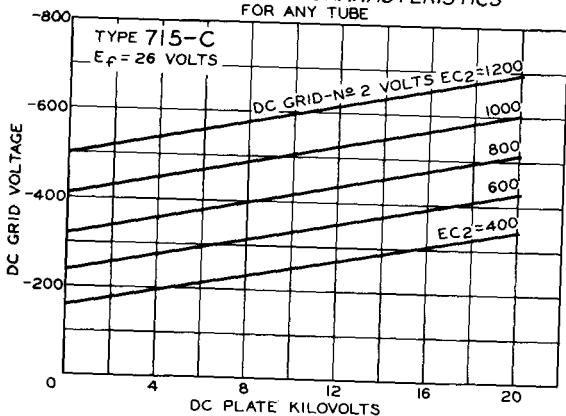
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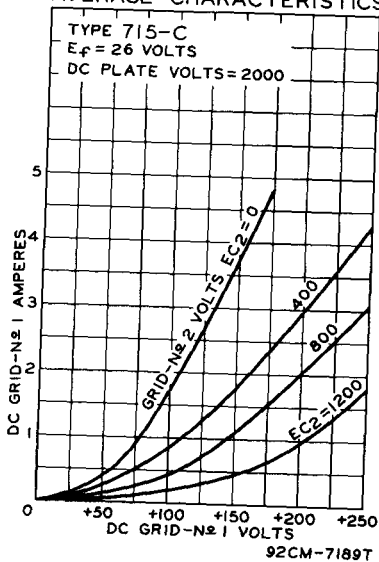
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MAXIMUM CUTOFF CHARACTERISTICS
FOR ANY TUBE

AVERAGE CHARACTERISTICS



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