5592

POWER TRIODE

FORCED-AIR-COOLED, GROUNDED-GRID TYPE

GENERAL DATA

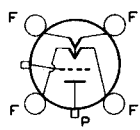
Electrical:

Filament, Multistrand Tungsten:		
Excitation . . .	Single-Phase AC or DC	
Voltage.	11	ac or dc volts
Current.	412	amp
Starting Current:	The filament current must never exceed 750 amperes, even momentarily.	
Cold Resistance. . . .	0.0026	ohm
Amplification Factor . .	32	
Direct Interelectrode Capacitances (Approx.):		
Grid to Plate.	35	μμf
Grid to Filament . . .	76	μμf
Plate to Filament. . .	1.2	μμf

Mechanical:

Terminal Connections:

F – Filament Posts
G – Grid-Flange Terminal



P – Radiator-Cooled Plate Terminal

DIAMETRICALLY OPPOSITE TERMINALS MUST BE CONNECTED TOGETHER

Mounting Position	Vertical, Filament end up
Maximum Overall Length	17-3/8"
Maximum Diameter	14-1/4"
Radiator	Integral part of tube
Mounting	Special
Air Flow:	
Through Radiator (for max. ratings). . .	1100 min. cfm
The specified air flow at a pressure of 2.4 inches of water should be delivered by a blower vertically upward through the radiator. Air flow should be started before the application of any voltages.	
To Filament Seals.	200 min. cfm
The specified air flow from a duct 8 square inches in area directed into the filament header before and during the application of any voltages, is required to limit the temperature of the header and filament seals to the maximum value.	
Input-Air Temperature (to radiator). . . .	45 max. °C
Radiator Temperature (measured in thermometer well). .	180 max. °C
Bulb Temperature	180 max. °C
Seal Temperature (filament, grid, plate) .	165 max. °C

RF POWER AMPLIFIER & OSCILLATOR – Class C Telegraphy

Key-down conditions per tube without amplitude modulation□

Maximum CCS● Ratings, *Absolute Values*:

DC PLATE VOLTAGE	11500 max.	volts
DC GRID VOLTAGE	-2000 max.	volts
DC PLATE CURRENT	4.5 max.	amp
DC GRID CURRENT	0.8 max.	amp

□, ●: See next page.

5592

5592
POWER TRIODE

PLATE INPUT		50 max.	kw
PLATE DISSIPATION		17.5 max.	kw
Typical Operation in Grounded-Filament Circuit:			
DC Plate Voltage	7500	11000	volts
DC Grid Voltage■	-360	-820	volts
	600	1000	ohms
	75	200	ohms
Peak RF Grid Voltage	900	1450	volts
DC Plate Current	4.4	3.6	amp
DC Grid Current (Approx.)*	0.6	0.8	amp
Driving Power (Approx.)*	450	1000	watts
Power Output (Approx.)	20	30	kw
Typical Operation as Amplifier in Grounded-Grid Circuit at 108 Mc:▲			
DC Plate Voltage		7500	volts
DC Grid Voltage■		-1000	volts
		1650	ohms
		200	ohms
Peak RF Grid Voltage		1550	volts
DC Plate Current		4.4	amp
DC Grid Current (Approx.)*		0.6	amp
Driving Power (Approx.)		9000	watts
Power Output (Approx.)		27	kw

□ Modulation essentially negative may be used if positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

● Continuous Commercial Service.

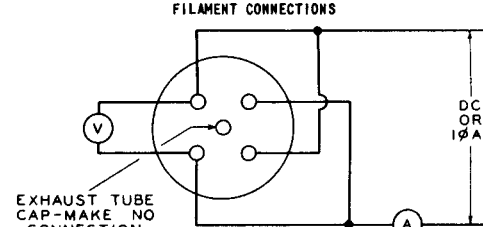
■ Obtained by grid-resistor (600,1000), cathode-resistor (75,200) or by partial self-bias methods.

* Subject to wide variations as explained on sheet TUBE RATINGS in General Section.

▲ For Class C Telegraphy or Class C FM Telephony.

Data on operating frequencies for the 5592 are given on the sheet TRANS. TUBE RATINGS vs FREQUENCY.

FILAMENT CONNECTIONS

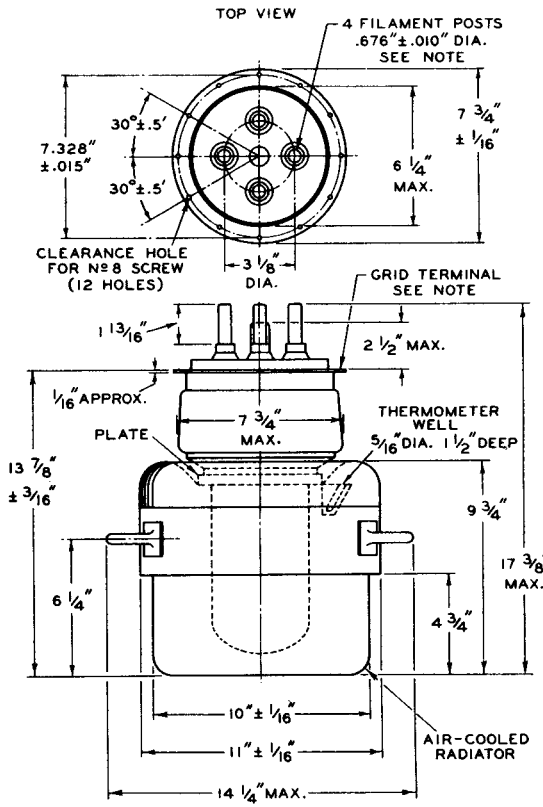


V= 11 VOLTS
A=412 AMP.

92CS-6828RI

5592

POWER TRIODE



NOTE: FLEXIBLE CONNECTIONS ARE REQUIRED.

92CM-6827

5592

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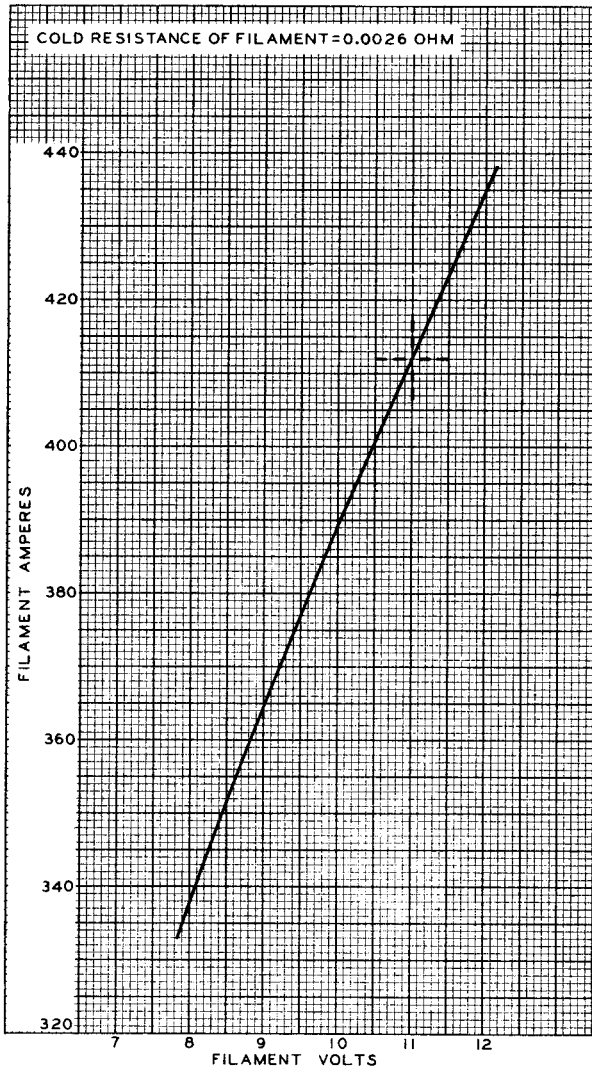
5592

AVERAGE FILAMENT CHARACTERISTIC



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92CM-6839

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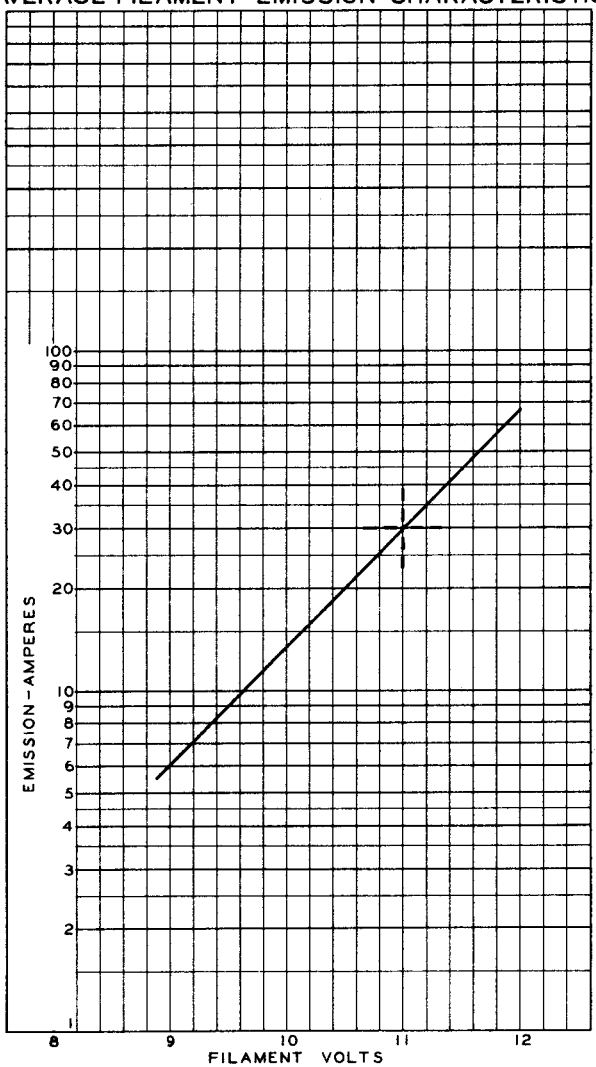
5592

AVERAGE FILAMENT-EMISSION CHARACTERISTIC



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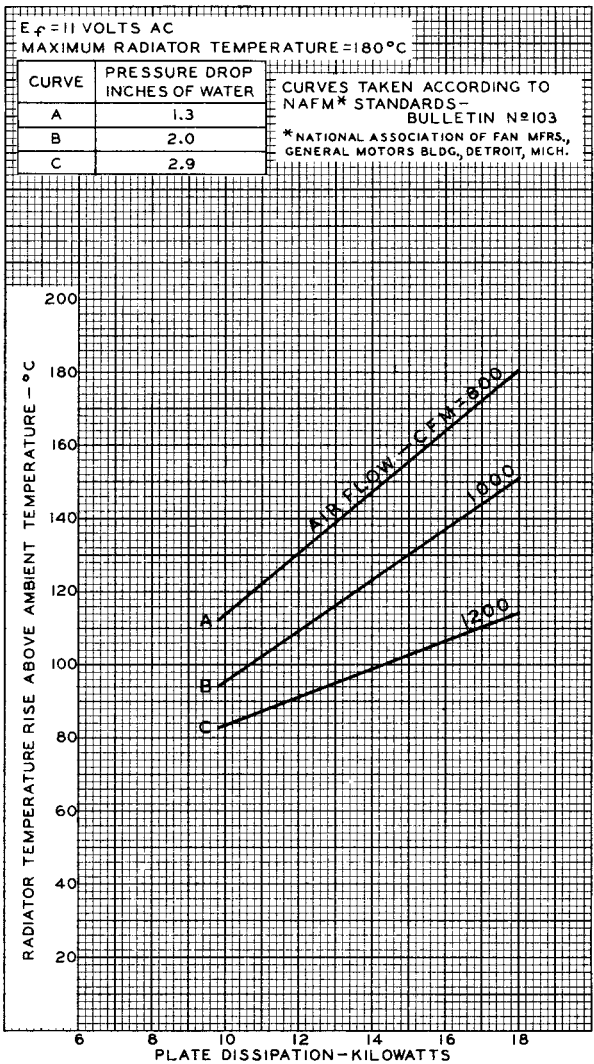
COOLING REQUIREMENTS



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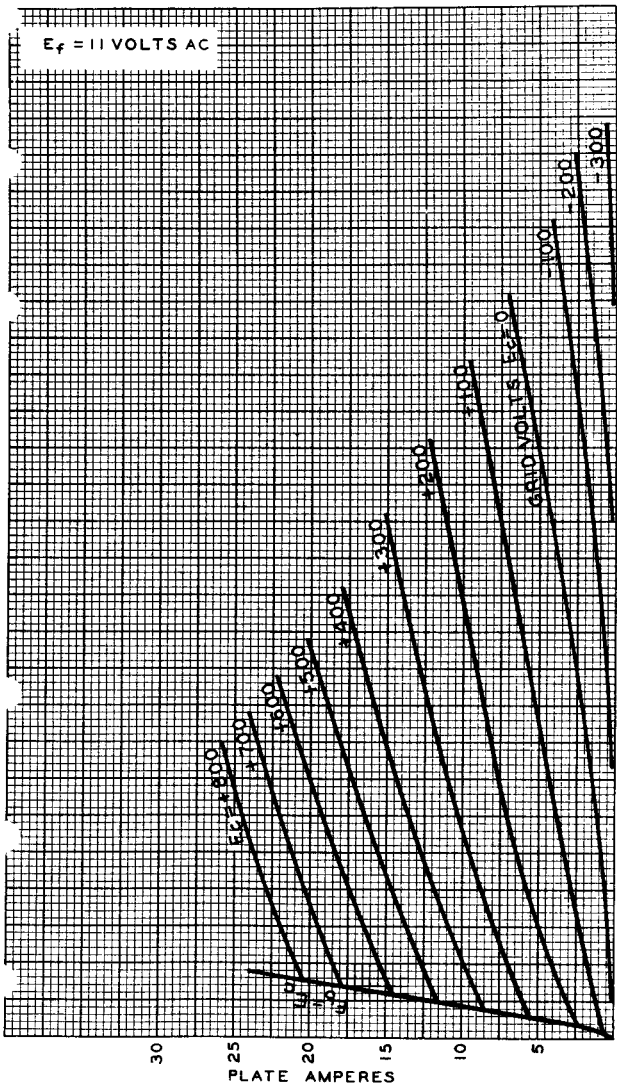
AVERAGE PLATE CHARACTERISTICS



MAR. 3, 1947

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92CM-6843

5592

TYPICAL GRID CHARACTERISTICS