

DESCRIPTION AND RATING

PIOTRON GL-5797

The GL-5797 is a subminiature semi-remote-cutoff pentode suitable for use as a radio-frequency amplifier at frequencies up to approximately 400 megacycles. The tube is designed to give reliable service and dependable life under conditions of shock, vibration, and high ambient temperature as encountered in aircraft service. The heater-cathode construction is designed to withstand many-thousand cycles of intermittent operation. The GL-5797 is especially suited for applications where the supply voltage for the heater, plate, and screen is approximately 26.5 volts.

TECHNICAL INFORMATION

GENERAL

Electrical Data

Cathode - Coated Unipotential

Heater Voltage	26.5	Volts
Heater Current	0.045	Ampere

Direct Interelectrode Capacitances*

Grid-No. 1 to Plate	0.028	Max uuf
Input	4.0	uuf
Output	4.2	uuf

Mechanical Data

Mounting Position - Any

Envelope - T-3 Glass

Base - Subminiature Button 8-Lead, K8-1**

MAXIMUM RATINGS

Electrical - Design Center Values

Plate Voltage	50	Volts
Screen Voltage	50	Volts
Plate Dissipation	0.8	Watt
Screen Dissipation	0.25	Watt
Cathode Current	9.0	Milliamperes
Heater-Cathode Voltage	90	Volts

Mechanical

Peak Impact Acceleration in Any Direction	300	G
Vibrational Acceleration in Any Direction /	2.5	G
Ambient Temperature	+175	C

CHARACTERISTICS AND TYPICAL OPERATION

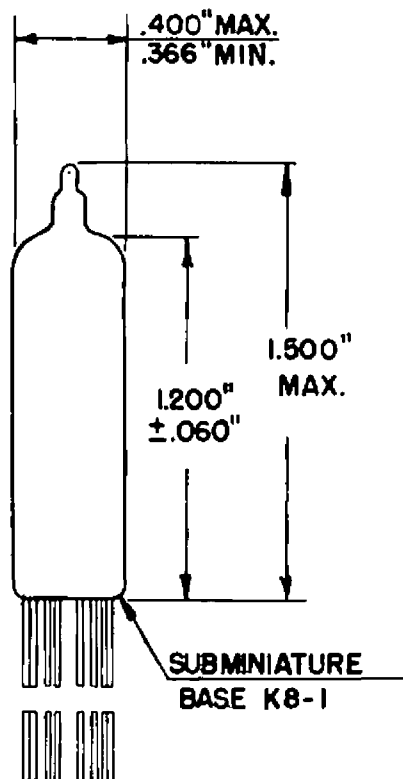
Class A₁ Amplifier

Plate Voltage	26.5	Volts
Suppressor Voltage #	0	Volt
Screen Voltage	26.5	Volts
Grid-No. 1 Voltage	0	Volt
Plate Resistance, approximate	0.07	Megohm
Transconductance	3450	Micromhos
Plate Current	2.75	Milliamperes
Screen Current	0.9	Milliampere
Grid-No. 1 Voltage, approximate for G _m = 10 Micromhos	-3.5	Volts

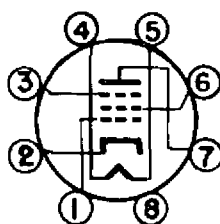
from RTMA release #1020,
Sept. 17, 1951, & release
#1020A, Dec. 12, 1952

GENERAL  ELECTRIC

- * With minimum lead length of 1.500 inches as specified.
- ** With external shield of 0.0405 inch diameter connected to cathode.
- / For a period of at least 96 hours at 25 cycles per second.
- # Lead 3 externally connected to lead 2.



BASING DIAGRAM



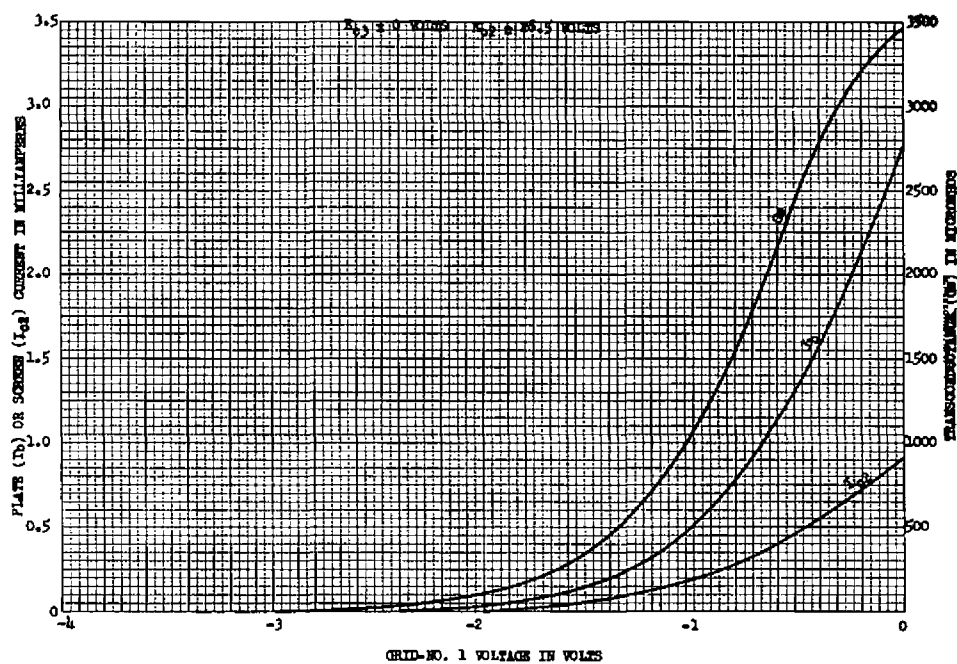
BCY
(BOTTOM VIEW)

- | | |
|---------|---|
| LEAD 1: | GRID NUMBER 1 |
| LEAD 2: | CATHODE |
| LEAD 3: | INTERNAL SHIELD AND GRID
NUMBER 3 (SUPPRESSOR) |
| LEAD 4: | HEATER |
| LEAD 5: | HEATER |
| LEAD 6: | GRID NUMBER 2 (SCREEN) |
| LEAD 7: | PLATE |
| LEAD 8: | NO CONNECTION |

K-69087-72A476 July 23, 1951

OUTLINE
GL-5797

$E_f = 26.5$ Volts $E_b = 26.5$ Volts

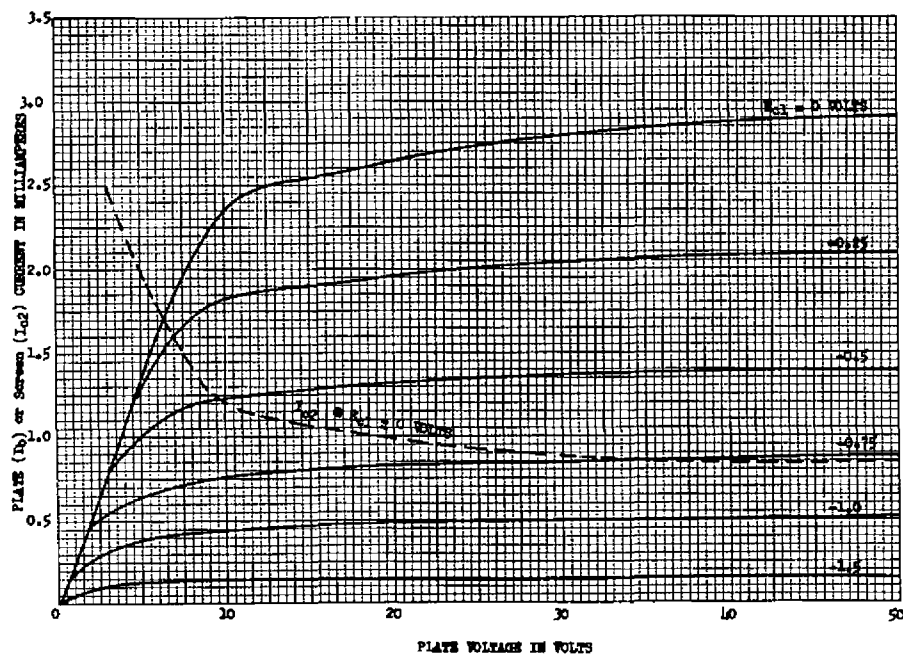


K-69087-72A467

July 23, 1951

GL-5797
AVERAGE CHARACTERISTICS

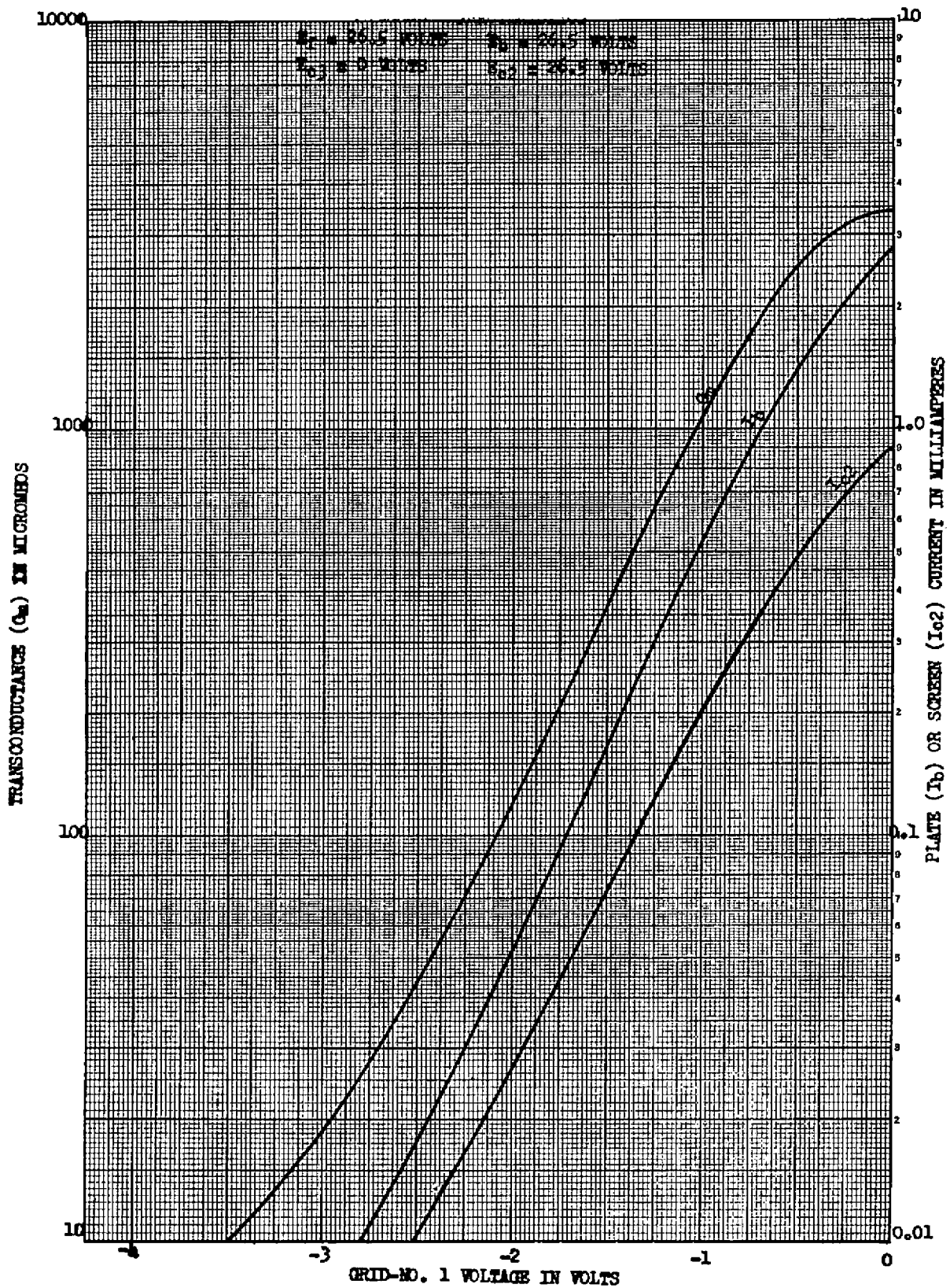
$E_f = 26.5$ Volts $E_{C3} = 0$ Volts
 $E_{C2} = 26.5$ Volts



K-69087-72A469

July 19, 1951

GL-5797
AVERAGE PLATE CHARACTERISTICS



K-69087-72A468

July 23, 1951

GL-5797
 AVERAGE CHARACTERISTICS

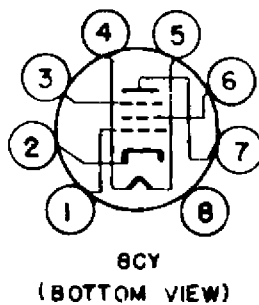
GENERAL  **ELECTRIC**
 ELECTRONICS DEPARTMENT, TUBE DIVISIONS
 SCHENECTADY, NEW YORK

Correction Notice for 5797 and 5798 Data Sheets

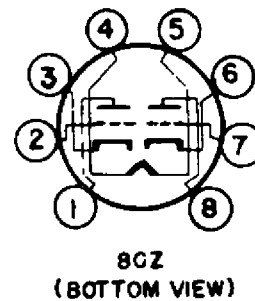
Direct Interelectrode Capacitances should be referenced with a double asterisk instead of a single one.

Base-Subminiature Button 8-Lead, K8-1 should be referenced with a single asterisk instead of a double one.

The Basing Diagram should show an eighty-degree spacing between leads one and eight and a forty-degree spacing between all other leads. The proper delineation of this diagram appears below.



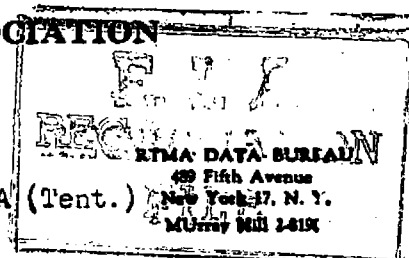
5797



5798

RADIO - TELEVISION MANUFACTURERS ASSOCIATION

ENGINEERING DEPARTMENT



Release No. 1020 A (Tent.)

December 12, 1952

To Tube Engineers:

On September 17, 1951, in Release No. 1020, the RTMA Engineering Office announced registration of the tube type designations

5797
5798

under sponsorship of General Electric Company, Schenectady 5, New York.

Sponsor now proposes the following modifications in designation 5797:

<u>Item</u>	<u>As Registered</u>	<u>As Proposed</u>
Direct Interelectrode Capacitances		
Grid No.1 to Plate, maximum,	0.028	0.024 uuf
Input	4.0	4.2 uuf
Output	4.2	3.2 uuf
Heater Voltage	26.5	26.5/5% Volts
Base - Subminiature Button 8-Lead	K8-1	E8-10
MAXIMUM RATINGS		
Mechanical		
Peak Impact Acceleration	300	450 G
Ambient Temperature	175	omit Centigrade
Bulb Temperature at Hottest Point	not given	225 Centigrade
CHARACTERISTICS AND TYPICAL OPERATION		
Plate Current	2.75	2.8 Milliamperes

And the following modifications to designation 5798:

Heater Voltage	26.5	26.5/5% Volts
Base-Subminiature Button 8-Lead	K8-1	E8-10
MAXIMUM RATINGS		
Electrical		
Plate Dissipation (Each Section)	0.4	0.2 Watt
Mechanical		
Peak Impact Acceleration	300	450 G
Ambient Temperature	175	omit Centigrade
Bulb Temperature at Hottest Point	not given	225 Centigrade
CHARACTERISTICS AND TYPICAL OPERATION		
Amplification Factor	21	24
Plate Resistance, approximate	6700	7100 Ohms
Transconductance	3150	3400 Micromhos
Plate Current	2.3	2.0 Milliamperes

Unless valid objection to these reregistrations are lodged with the Engineering Office prior to January 12, 1953, these registrations will be made and this material will be reissued marked "Final".

Very truly yours,

Chief Engineer
Radio-Television Manufacturers Association

RRBa tcher:mg