6080

LOW-MU TWIN POWER TRIODE

GENERAL DATA

Heater, for Unipotential Cathodes:		
Voltage	6.3 ± 10%	ac or dc volts
Current	2.5	amp
Direct Interelectrode Capacitances (Approx.):		←
(Each Unit, without external shield)		
Grid to Plate	8	μμf
Input	6	μμf
Output	2.2	μμf
Heater to Cathode:		
Triode Unit No.1	6.5	μμf
Triode Unit No.2	6	μμf
Grid of Unit No.1 to Grid of Unit No.2	0.5	μμf
Plate of Unit No.1 to Plate of Unit No.2	2	μμf

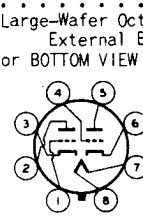
Characteristics, Amplifier Class A_1 (Each Unit):

Plate-Supply Voltage	135	volts
Cathode-Bias Resistor	250	ohms
Amplification Factor	2	
Plate Resistance	280	ohms
Transconductance	7000	μmhos
Plate Current	125	ma

Mechanical:

Mounting Position	Any
Maximum Overall Length	4-1/16" ←
Maximum Seated Length	3-1/2" ←
Maximum Diameter	1-23/32"
Bulb	T-12
Base	Large-Wafer Octal 8-Pin with Sleeve and External Barriers (JETEC No.B8-98) ←
Basing Designation for BOTTOM VIEW	8BD

Pin 1 - Grid of Unit No.2
Pin 2 - Plate of Unit No.2
Pin 3 - Cathode of Unit No.2
Pin 4 - Grid of Unit No.1



Pin 5 - Plate of Unit No.1
Pin 6 - Cathode of Unit No.1
Pin 7 - Heater
Pin 8 - Heater

DC AMPLIFIER

Values are for Each Unit

Maximum Ratings, *Absolute Values:*

PLATE VOLTAGE	250 max.	volts
PLATE CURRENT	125 max.	ma
PLATE DISSIPATION	13 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	300 max.	volts
Heater positive with respect to cathode	300 max.	volts

← Indicates a change

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BULB TEMPERATURE●.	200 max.	°C

Maximum Circuit Values:

Grid-Circuit Resistance:		
For cathode-bias operation	1.0 max.	megohm
For fixed-bias operation□.	0.1 max.	megohm
For combined fixed and cathode-bias operation▲.	0.1 max.	megohm

BOOSTER SCANNING SERVICE

Values are for Each Unit

Maximum Ratings, *Absolute Values*:

For operation in a 525-line, 30-frame system▲

PEAK NEGATIVE-PULSE PLATE VOLTAGE●	3000 max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE	2300 max.	volts
DC PLATE CURRENT	125 max.	ma
PLATE DISSIPATION.	13 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode●	300 max.	volts
Heater positive with respect to cathode.	300 max.	volts
BULB TEMPERATURE●.	200 max.	°C

Maximum Circuit Values (For maximum rated conditions):

Grid-Circuit Resistance:		
For cathode-bias operation	1.0 max.	megohm
For fixed-bias operation	not recommended	

→ **CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN**

	Note	*Min.*	*Max.*	
Heater Current	1	2.26	2.74	amp
Amplification Factor (Each Unit) . . .	1,2	1.4	2.6	
Plate Current (Each Unit). .	1,2	100	150	ma
Transconductance (Each Unit) . . .	1,2	5800	8200	μmhos
Reverse Grid Current (Units in Parallel)	1,3	–	4	μamp

Note 1: With 6.3 volts ac or dc on heater.

Note 2: With plate-supply voltage of 135 volts, and cathode-bias resistor of 250 ohms in each cathode (both triode units operating).

Note 3: With plate-supply voltage of 135 volts, grid resistor of 1 megohm in each grid and cathode-bias resistor of 250 ohms in each cathode (both triode units operating).

● At hottest point on bulb surface.

□ When fixed bias is used, the plate circuit should contain a protective resistance to provide a minimum drop of 15 volts dc at the normal operating conditions.

★,▲,●,◆: See next page. →indicates a change

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★ When combined fixed- and cathode-bias is used, the cathode-bias portion should have a minimum value of 7.5 volts dc at the normal operating conditions.

▲ As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

● The duration of the voltage pulse must not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

● Operation of this tube is not recommended with a damper pulse between heater and cathode.

SPECIAL RATINGS & PERFORMANCE DATA ←

Shock Rating:

Impact Acceleration . . . . . 450 max. g

Tubes are held rigid in four different positions in a Navy Type, High Impact (flyweight) Shock Machine and are subjected to 450 g impact acceleration.

Fatigue Rating:

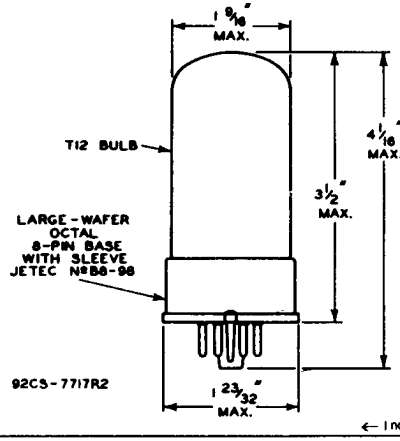
Vibrational Acceleration . . . . . 2.5 max. g

Tubes are rigidly mounted and subjected in each of three positions to 2.5 g vibrational acceleration at 25 cycles per second for 32 hours.

Low-Frequency Vibration Performance:

RMS Output Voltage . . . . . 200 max. mv

Under the following conditions and with units connected in parallel: Heater voltage of 6.3 volts, plate voltage supply of 135 volts, dc grid voltage of −7 volts, plate load resistance of 2000 ohms, and vibrational acceleration of 2.5 g at 25 cycles per second.



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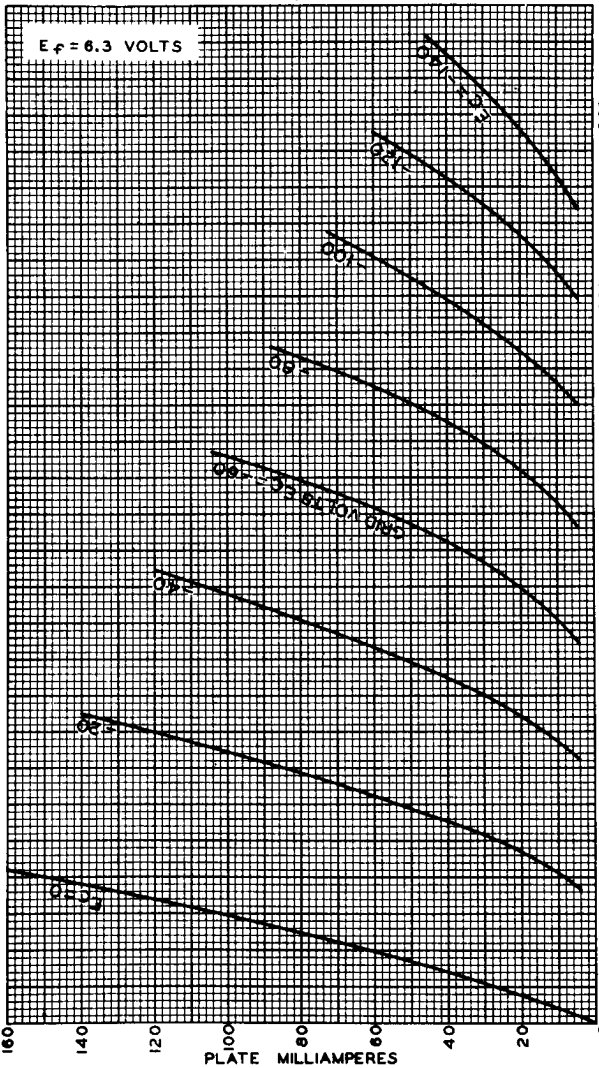
AVERAGE PLATE CHARACTERISTICS

EACH TRIODE UNIT



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