

Same as 6AS7-G/GA except for dimensions and shock/fatigue ratings. Same as 6082 except for filament voltage/current.



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## 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	μf
Input . . . . .	6	μf
Output . . . . .	2.2	μf

Heater to Cathode:

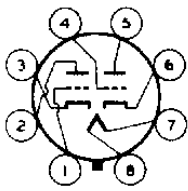
Triode Unit No.1 . . . . .	6.5	μf
Triode Unit No.2 . . . . .	6	μf
Grid of Unit No.1 to Grid of Unit No.2 . . . . .	0.5	μf
Plate of Unit No.1 to Plate of Unit No.2 . . . . .	2	μf

### Characteristics, Amplifier Class A<sub>1</sub> (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.88-98) ←
Basing Designation for BOTTOM VIEW . . . . .	8BD

Pin 1 - Grid of Unit No.2		Pin 5 - Plate of Unit No.1
Pin 2 - Plate of Unit No.2		Pin 6 - Cathode of Unit No.1
Pin 3 - Cathode of Unit No.2		Pin 7 - Heater
Pin 4 - Grid of Unit No.1		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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**LOW-MU TWIN POWER TRIODE**

BULB TEMPERATURE\* . . . . . 200 max. °C

**Maximum Circuit Values:**

Grid-Circuit Resistance:  
 For cathode-bias operation . . . . . 1.0 max. megohm  
 For fixed-bias operation<sup>□</sup>. . . . . 0.1 max. megohm  
 For combined fixed and  
 cathode-bias operation<sup>\*</sup>. . . . . 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<sup>▲</sup>*

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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### LOW-MU TWIN POWER TRIODE

- ★ 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:

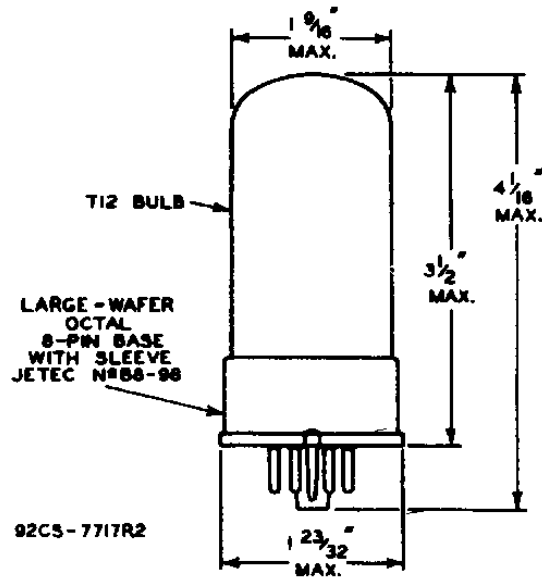
Impact Acceleration . . . . . 450 max. g  
 Tubes are held rigid in four different positions in a Navy Type, High Impact (flyweight) Shock Machine and are subjected to 450 g impact acceleration.

##### 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.



← Indicates a change

AUG. 1, 1953

TUBE DEPARTMENT

DATA 2

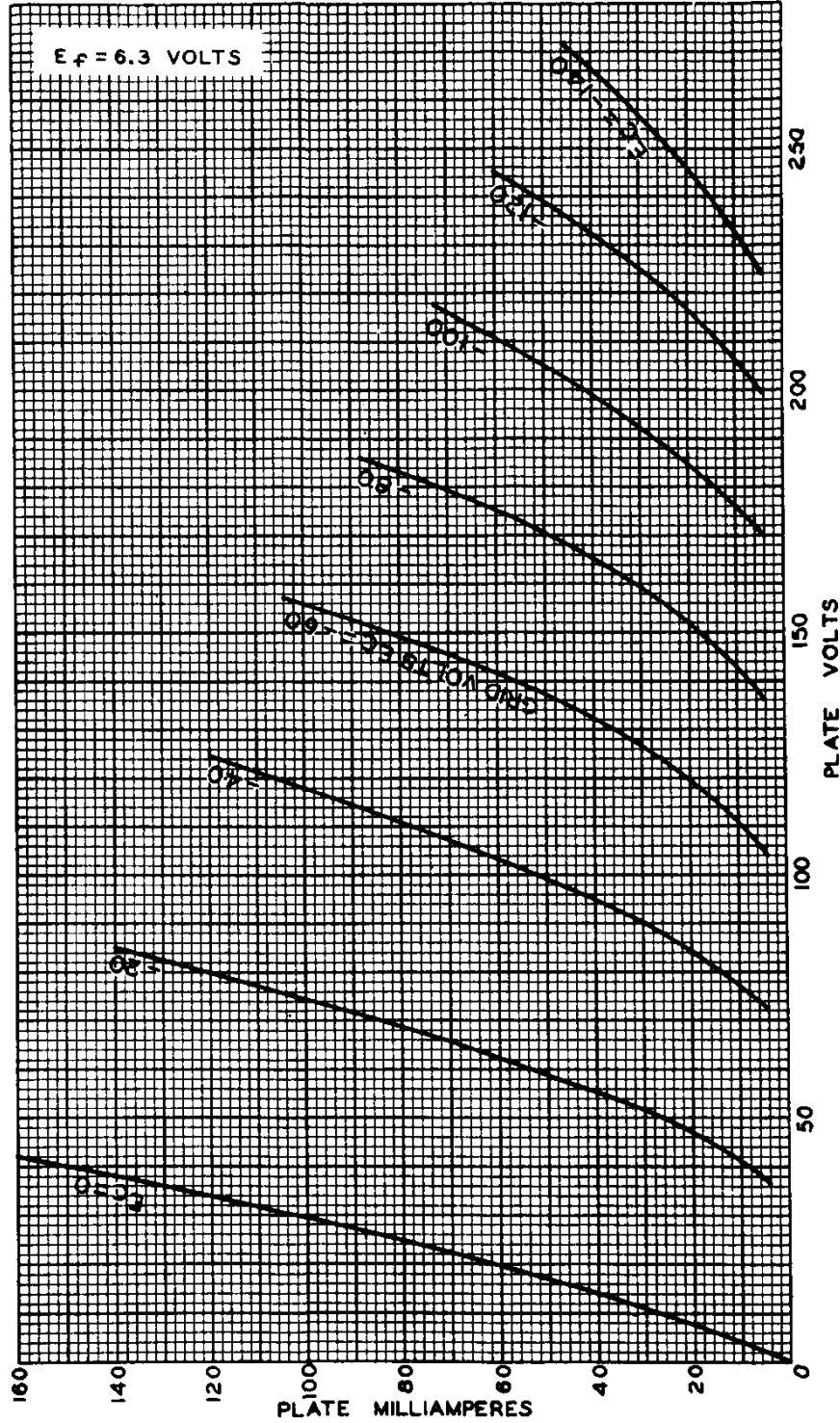
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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### AVERAGE PLATE CHARACTERISTICS EACH TRIODE UNIT



OCT. 19, 1951

TUBE DEPARTMENT  
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-7695

