

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:

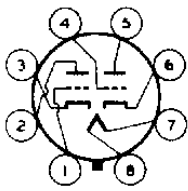
Triode Unit No.1	6.5	μf
Triode Unit No.2	6	μf
Grid of Unit No.1 to Grid of Unit No.2	0.5	μf
Plate of Unit No.1 to Plate of Unit No.2	2	μf

Characteristics, Amplifier Class A₁ (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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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				
<i>Values are for Each Unit</i>				
Maximum Ratings, Absolute Values:				
<i>For operation in a 525-line, 30-frame system[▲]</i>				
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				
	<i>Note</i>	<i>Min.</i>	<i>Max.</i>	
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:

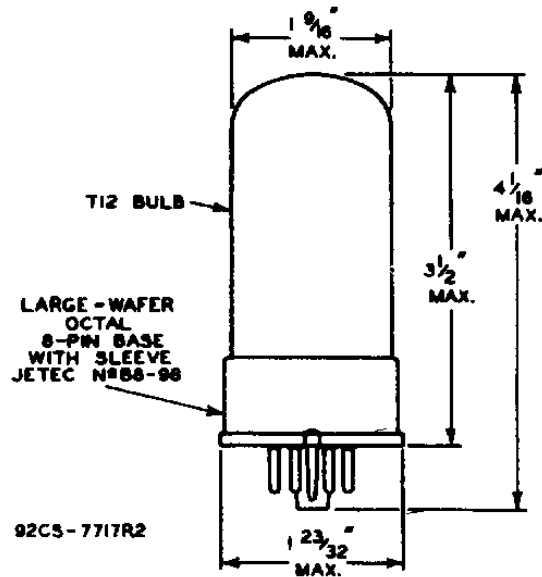
Impact Acceleration 450 max. g
 Tubes are held rigid in four different positions in a Navy Type, High Impact (flyweight) Shock Machine and are subjected to 450 g impact acceleration.

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.



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DATA 2

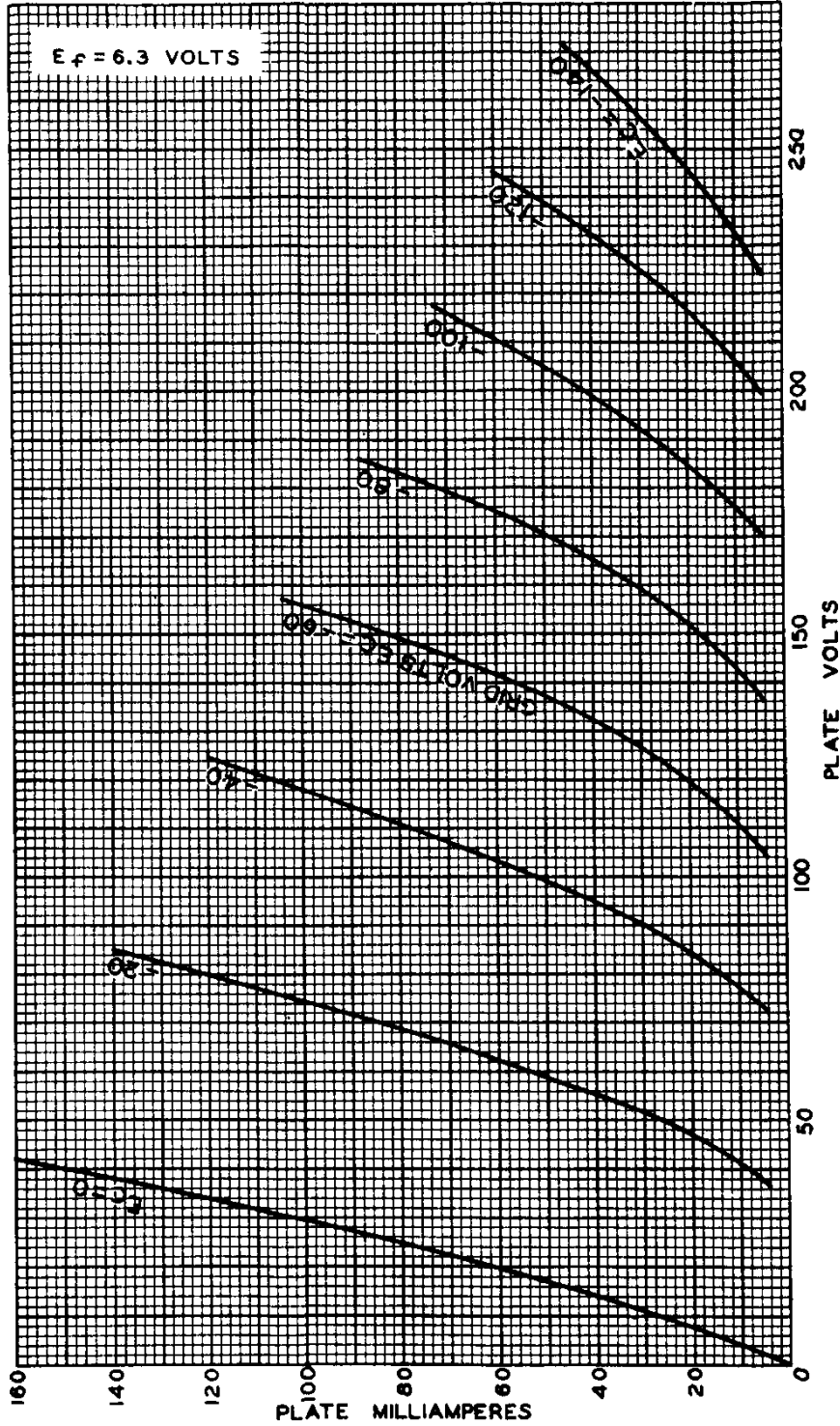
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AVERAGE PLATE CHARACTERISTICS EACH TRIODE UNIT



OCT. 19, 1951

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