

6N7, 6N7-GT/G

even.

CLASS B TWIN AMPLIFIER

Heater Coated Unipotential Cathode						
Voltage		6.3	а	⊢c or d⊢c \	volts	
Current		0.8			amp.	
		6N7		6N7-GT/G		
Maximum Overall		3-1/4'		3-5/16"		
Maximum Seated		2-11/1		2-2/4"		
Maximum Diamete	er	1-5/16		1-5/16" T-9		
Bulb		Metal Shell, (Small Wafe		ntermed. Sh		
Base		lOctal 8-Pi		octal 8-Pin	•	
1 11		Notal 8-FI	in ito	G-8B		
Basing Design	ation	@ @ ⁰⁰	D: n	5-Grid (Tri	ode T)	
Pin 1- (6N7-GT/	G.			6-Piate (Tri		
	onn.	3/2-10		7-Heater	1000	
Pin 2-Heater		2 20		8-Cathode		
Pin 3-Plate (FILE	o-cathode		
Pin 4-Grid (τ Mounting Positi		U _{ne} vo				
,		BOTTOM VIEW			Any	
For convenience, one triode unit is identified as f_1 ; the other as f_2 .						
Maximum Ratings Are Design-Center Values						
			cenver .			
	-			, araes		
	-	B POWER AMPL		, drue s		
Plate Voltage	-			300 max.	volts	
	CLASS	B POWER AMPL				
Plate Voltage Peak Plate Curr	CLASS ent (per	B POWER AMPL	<u>IFIÉR</u>	300 max.	ma.	
Plate Voltage Peak Plate Curr Average Plate D	CLASS ent (per dissipati	plate) on (per plate)	IFIÉR)	300 max. 125 max. 5.5 max.	ma.	
Plate Voltage Peak Plate Curr Average Plate C Typical Operati	CLASS rent (per Dissipati on:	plate) on (per plate) ified, values	IFIER) are for	300 max. 125 max. 5.5 max.	ma. watts	
Plate Voltage Peak Plate Curr Average Plate D	CLASS rent (per Dissipati on:	plate) on (per plate) ified, values	IFIÉR)	300 max. 125 max. 5.5 max.	ma. watts	
Plate Voltage Peak Plate Curr Average Plate C Typical Operati	cLASS rent (per dissipation: dise spec impedance	plate) on (per plate) ified, values e	ore for	300 max. 125 max. 5.5 max. the two w	ma. watts nits ohms	
Plate Voltage Peak Plate Curr Average Plate C Typical Operati **Typical Operati **Typical Operati **Typical Operati **Typical Operati **Typical Operation **Plate-Supply	CLASS rent (per Dissipati on: Diss spec Impedanc d-Circui	plate) on (per plate) ified, values e	are for	300 max. 125 max. 5.5 max. ** the two w** 10000000000000000000000000000000000	ma. watts nits ohms	
Plate Voltage Peak Plate Curr Average Plate C Typical Operati Unless other Plate-Supply Effective Gri	CLASS rent (per Dissipati Ion: Disse spec Impedanc d-Circui Init)	plate) on (per plate) ified, values e	ore for	300 max. 125 max. 5.5 max. the two w	ma. watts nits ohms ohms volts	
Plate Voltage Peak Plate Curr Average Plate C Typical Operate Uniess other Plate-Supply Effective Gri ance (per u	CLASS rent (per Dissipati Ion: Disse spec Impedanc d-Circui Init)	plate) on (per plate) ified, values e	1FIER 0 0 300 0	300 max. 125 max. 5.5 max. *** the two w 1000000000000000000000000000000000000	ma. watts nits ohms	
Plate Voltage Peak Plate Curr Average Plate C Typical Operati Onless others Plate-Supply Effective Gri ance (per u Plate Voltage	CLASS Tent (per Dissipation: Wise spec Impedanc d-Circuinit)	plate) on (per plate) ified, values e t Imped-	1FIER are for 0 300 0 58	300 max. 125 max. 5.5 max. 1000000000000000000000000000000000000	ma. watts nits ohms ohms volts	
Plate Voltage Peak Plate Curr Average Plate C Typical Operati Thiss other Plate-Supply Effective Gri ance (per u Plate Voltage Grid Voltage	CLASS rent (per Dissipati ion: wise spec Impedanc d-Circui init) d-to-Grid	plate) on (per plate) ified, values e t Imped-	1FIER 0 0 300 0	300 max. 125 max. 5.5 max. *** the two w 1000000000000000000000000000000000000	ma. watts nits ohms ohms volts volts	
Plate Voltage Peak Plate Curr Average Plate C Typical Operati Onless others Plate-Supply Effective Gri ance (per u Plate Voltage Grid Voltage Peak A-F Gric Zero-Sig. D-C	CLASS rent (per prissipation: place spec d-Circuinit) d-to-Grid Plate C	plate; on (per plate; ified, values e t Imped-	1FIER are for 0 300 0 58	300 max. 125 max. 5.5 max. 1000000000000000000000000000000000000	ma. watts nits ohms ohms volts volts volts	
Plate Voltage Peak Plate Curr Average Plate C Typical Operati **Inless other** Plate-Supply Effective Gri ance (per u Plate Voltage Grid Voltage Peak A-F Gric Zero-Sig. D-C MaxSig. D-C	cLASS rent (per prissipati con: pulse spec d-Circui unit) d-to-Grid C Plate C Plate C	plate) on (per plate) ified, values e t Imped- Voltage* ur.	0 300 0 58 35	300 max. 125 max. 5.5 max. ***the two w**100000000000000000000000000000000000	ma. watts nits ohms ohms volts volts volts ma.	
Plate Voltage Peak Plate Curr Average Plate C Typical Operati **Inless other Plate-Supply Effective Gri ance (per u Plate Voltage Grid Voltage Peak A-F Gric Zero-Sig. D-C MaxSig. D-C Peak Grid Curr Peak Grid Curr	CLASS rent (per Dissipation: on: on: d-Circui unit) e d-to-Grid C Plate C Plate C C Plate C C (per u	plate) on (per plate) ified, values e t Imped- Voltage* ur.	0 300 0 58 35 70 20	300 max. 125 max. 5.5 max. 10000 51600 300 0 82° 35 70	ma. watts nits ohms ohms volts volts volts ma. ma.	

4

3.5

1.5

8

7.5

2.5

10

ળ

watts

Two 6N7's or 6N7-G's can be operated in a class B output stage with the two triode units of each tube connected in parallel to give a power output of 20 watts (approx.) under conditions of 300 volts on the plates and a 5000-ohm plate-to-plate load.

Total Harmonic Distortion

Third Harmonic Distortion

Fifth Harmonic Distortion

Max.-Sig. Power Output

- Indicates a change,

On Aractical design value.

At 400 cycles for class B stage in which the effective resistance per grid circuit is 500 ohms, and the leakage reactance of the coupling transformer is 50 millihenries. The driver stage should be capable of supplying the grids of the class B stage with the specified values at low distortion.

Includes peak voltage drop through the grid circuit impedance.
 For power output shown.

See next page.



6N7. 6N7-GT/G

CLASS B TWIN AMPLIFIER

(continued from preceding page)

CLASS A. AMPLIFIER - As Driver

Both grids connected together at socket; likewise, both plates. Plate Voltage 300 max. volts

1.0 max. watt

Plate Dissipation (per plate) Tubical Oberation

pricae operation.			
Plate	250	294	volts
Grid ▲	5	-6	volts
Amp. Fact.	35	35	
Plate Res.	11300	11000	ohms
Transcond.	3100	3200	µmhos
Dlata Cur	6	. 7	ma

Plate Cur. Plate Load-Depends largely on the design factors of the class B amplifier. In general, the load will be between 20000 and 40000 ohms.

Power Output-under max, voltage conditions, upwards of 400 mw. can be obtained.

In circuits where the cathode is not directly connected to the heater, the potential difference between heater and cathode should be kept as low as possible.

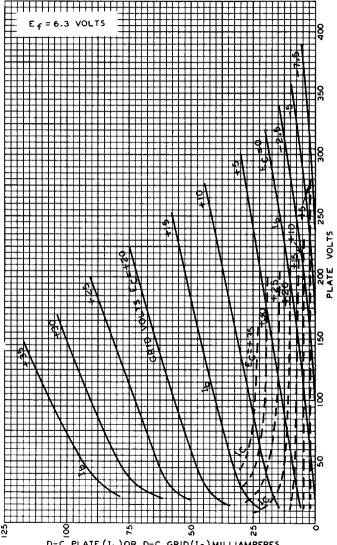
The d-c resistance in the grid circuit of the 6N7 or 6N7-GT/G as a class A amplifler may be as high as 0.5 megohm with cathode bias. With fixed bias, the resistance should not exceed 0.1 megohm.

For additional curves, see Types 6A6 and 53; for data, see RESISTANCE-COUPLED AMPLIFIER CHART.

Indicates a change.



AVERAGE PLATE CHARACTERISTICS EACH TRIODE UNIT



D-C PLATE (I_b)OR D-C GRID(I_C)MILLIAMPERES
DEC.18,1939 RCA RADIOTRON DIVISION 92

920-4611

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