3E22

PUSH-PULL H-F BEAM POWER AMPLIFIER

Unless otherwise specified, values are for both units

GENERAL DATA

Electrical:

Heaters, for Unipotential Cathodes.

	Series	Parallel	
Arrangement			
Voltage	12.6 ± 10%	6.3 ± 10%	ac or dc volts ←
Current	0.8	1.6	amp
Transconductance, for plate current of 25 ma	4000		μmhos
Grid-Screen Mu-Factor	6.5		

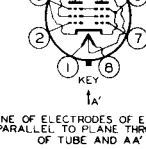
Direct Interelectrode Capacitances (Each Unit):*

Grid No.1 to Plate	0.22 max.	μμf
Input	14	μμf
Output	8.5	μμf

Mechanical:

Mounting Position	Vertical, base up or down; or Horizontal, plane of plates vertical
Overall Length	4-3/8" ± 3/16"
Seated Length	3-13/16" ± 3/16"
Maximum Diameter	2-3/8"
Bulb	T-16
Caps (Two)	Small
Base	Large Wafer Octal 8-Pin Micanol with Sleeve No.T253 ←
Basing Designation for BOTTOM VIEW	8BY

Pin 1 - Heater
Pin 2 - Grid No.1 of Unit No.2
Pin 3 - Cathode, Grid No.3, Internal Shield
Pin 4 - Grid No.2
Pin 5 - Heater Center-Tap
Pin 6 - Cathode, Grid No.3, Internal Shield ←
Pin 7 - Grid No.1 of Unit No.1 ←
Pin 8 - Heater
PU_1 - Plate of Unit No.1
PU_2 - Plate of Unit No.2



PLANE OF ELECTRODES OF EACH UNIT IS PARALLEL TO PLANE THROUGH AXIS OF TUBE AND AA'

PLATE-MODULATED PUSH-PULL RF POWER AMP. — Class C Telephony

Carrier conditions per tube for use with a maximum average modulation factor of 0.25

Maximum Ratings, *Absolute Values*:

	IMS●	
DC PLATE VOLTAGE	560 max.	volts
DC GRID-No.2 (SCREEN) VOLTAGE	225 max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE	-175 max.	volts
DC PLATE CURRENT	160 max.	ma. •
DC GRID-No.1 CURRENT	11 max.	ma.
PLATE INPUT	90 max.	watts

*, ●, See next page. ←Indicates a change.

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PUSH-PULL H-F BEAM POWER AMPLIFIER

GRID-No.2 INPUT	6 max.	watts
PLATE DISSIPATION	30 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	100 max.	volts
Heater positive with respect to cathode	100 max.	volts

Typical Operation:

DC Plate Voltage	560	volts
DC Grid-No.2 Voltage□	200	volts
	18000	ohms
DC Grid-No.1 Voltage△	−50	volts
	7700	ohms
Peak RF Grid-No.1-to-Grid-No.1 Voltage	130	volts
DC Plate Current	160	ma.
DC Grid-No.2 Current	20	ma.
DC Grid-No.1 Current (Approx.)	6.5	ma.
Driving Power (Approx.)	0.4	watt
Power Output (Approx.)	67	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance§	30000 max.	ohms

PUSH-PULL RF POWER AMPLIFIER & OSCILLATOR – Class C Telegraphy

Key-down conditions per tube without modulation #

Maximum Ratings, *Absolute Values*:

	IWS●	
DC PLATE VOLTAGE	600 max.	volts
DC GRID-No.2 (SCREEN) VOLTAGE	225 max.	volts
DC GRID-No.1 (CONTROL GRID) VOLTAGE	−175 max.	volts
DC PLATE CURRENT	175 max.	ma.
DC GRID-No.1 CURRENT	11 max.	ma.
PLATE INPUT	100 max.	watts
GRID-No.2 INPUT	6 max.	watts
PLATE DISSIPATION	35 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	100 max.	volts
Heater positive with respect to cathode	100 max.	volts

Typical Operation:

DC Plate Voltage	600	volts
DC Grid-No.2 Voltage⊕	200	volts
	20000	ohms
DC Grid-No.1 Voltage ‡	−55	volts
	7850	ohms
	295	ohms
Peak RF Grid-No.1-to-Grid-No.1 Voltage	140	volts
DC Plate Current	160	ma.
DC Grid-No.2 Current	20	ma.
DC Grid-No.1 Current (Approx.)	7	ma.

*, ●, □, △, #, ⊕, †, ‡, §: See next page.