



ELECTRONIC TUBE REFERENCE

833

Power - Triode (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

High-power transmitting triode from the 833 family, historically intended for RF power amplification, oscillation, and transmitter modulation. Available documentation supports the functional role but not sufficiently reliable detailed ratings for this exact designation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	10 V / 10 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
AMPLIFICATION FACTOR	35
MAXIMUM PLATE VOLTAGE	3000 V
MAXIMUM PLATE DISSIPATION	300 W
<i>Published ratings and characteristics from source sheet.</i>	

High-mu transmitting triode for high-power RF, oscillator, and Class B modulator service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 RCA Transmitting Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1938 RCA TRANSMITTING TUBES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
watts at frequencies as high as	30 MHz	watts at frequencies as high as 30 megacycles, and with reduced input at fre→
quencies as high as	100 MHz	quencies as high as 100 megacycles.
Peak A-F Grid-to-Grid Voltage . 380 300	400 V	Peak A-F Grid-to-Grid Voltage . 380 300 400 Volts
Zero-Sig. D-C Plate Current .. 100 100	100 mA	Zero-Sig. D-C Plate Current .. 100 100 100 Milliamperes
Max.-Sig. D-C Plate Current 800 520	750 mA	Max.-Sig. D-C Plate Current 800 520 750 Milliamperes
Load Resistance (Per tube) . 1825 2600	2375 Ω	Load Resistance (Per tube) . 1825 2600 2375 Ohms
Effective Load Res. (Plate-to-plate) 7300 10400	9500 Ω	Effective Load Res. (Plate-to-plate) 7300 10400 9500 Ohms
Max.-Sig. Driving Power (Approx.) 15 5	20 W	Max.-Sig. Driving Power (Approx.) 15 5 20 Watts
Max.-Sig. Power Output (Approx.) 1425 840	1650 W	Max.-Sig. Power Output (Approx.) 1425 840 1650 Watts
Plate Input	450 W	Plate Input ... 450 max. Watts
Peak R-F Grid Voltage ... 80	90 V	Peak R-F Grid Voltage ... 80 90 Volts
D-C Plate Current...--- 150	150 mA	D-C Plate Current...--- 150 150 Milliamperes
D-C Grid Current (Approx.) . 2	2 mA	D-C Grid Current (Approx.) . 2 2 Milliamperes
Power Output (Approx.) --- 125	150 W	Power Output (Approx.) --- 125 150 Watts
D-C Plate Voltage	2500 V	D-C Plate Voltage ... 2500 max. Volts
D-C Grid Voltage	-500 V	D-C Grid Voltage..... -500 max. Volts
D-C Plate Current	400 mA	D-C Plate Current-. 400 max. Milliamperes

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
D C Grid Current	75 mA	D C Grid Current.-..... 75 max. Milliamperes
Plate Input	835 W	Plate Input..... 835 max. Watts
Driving Power (Approx.) 30	30 W	Driving Power (Approx.) 30 30 Watts
Power Output (Approx.) 550	635 W	Power Output (Approx.) 550 635 Watts
D-C Plate Current	500 mA	D-C Plate Current. 500 max. Milliamperes
D-C Grid Current	75 mA	D-C Grid Current. -- 75 max. Milliamperes
Plate Dissipation r	300 W	Plate Dissipation r. 300 max. Watts
D-C Plate Voltage.. 2500	3000 V	D-C Plate Voltage.. 2500 3000 Volts
D-C Grid Voltage -200	-200 V	D-C Grid Voltage -200 -200 Volts
Peak R-F Grid Voltage .. . 390	360 V	Peak R-F Grid Voltage .. . 390 360 Volts
D-C Plate Current. . 475	415 mA	D-C Plate Current. . 475 415 Milliamperes
D-C Grid Current (Approx.) . 65	55 mA	D-C Grid Current (Approx.) . 65 55 Milliamperes
Driving Power (Approx.) . . 25	20 W	Driving Power (Approx.) . . 25 20 Watts
each stated value of grid voltage should be decreased by	7 V	each stated value of grid voltage should be decreased by 7 volts and the circuit returns made to the