



ELECTRONIC TUBE REFERENCE

RK52

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

High-mu directly heated Raytheon power triode for Class C RF amplification, Class B audio power, oscillation, and frequency multiplication. Moderate dissipation and 1.5 kV capability provide versatile transmitter service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	7.5 V / 3.75 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
MAXIMUM PLATE VOLTAGE	1500 V
MAXIMUM PLATE DISSIPATION	62.5 W
MAXIMUM CATHODE CURRENT	150 mA
<i>Published ratings/characteristics promoted where directly applicable; identical twin sections are compressed to one section row.</i>	

High-mu directly heated triode power amplifier for RF Class C service, audio-frequency Class B power amplification, oscillator service, and frequency multiplication.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon

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

1938 RAYTHEON

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	7.5 V	Published nominal value
Heater or filament current	3.75 A	Published nominal value

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	12 pF	Published direct interelectrode capacitance
Input capacitance	6.6 pF	Published direct interelectrode capacitance
Output capacitance	2.2 pF	Published direct interelectrode capacitance

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	1250 V	ClassB; TwoTubes
Maximum plate current per tube	150 mA	ClassB; TwoTubes
Maximum plate dissipation per tube	62.5 W	ClassB; TwoTubes
Plate voltage	1250 V	ClassB; TwoTubes
Grid voltage	0 V	ClassB; TwoTubes
No-signal plate current	40 mA	ClassB; TwoTubes
Maximum-signal plate current	300 mA	ClassB; TwoTubes
Maximum-signal grid current	100 mA	ClassB; TwoTubes
Peak AF grid voltage	180 V	ClassB; TwoTubes
AF driving power	7.5 W	ClassB; TwoTubes
Plate-to-plate load resistance	10000 ohm	ClassB; TwoTubes

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Audio power output	250 W	ClassB; TwoTubes
Maximum plate voltage	1500 V	ClassC; Telegraphy
Maximum plate current	130 mA	ClassC; Telegraphy
Maximum grid current	50 mA	ClassC; Telegraphy
Maximum plate dissipation	60 W	ClassC; Telegraphy
RF power output	135 W	ClassC; Telegraphy; Va=1500V
Maximum plate voltage	1250 V	ClassC; Telephony; PlateModulation
Maximum plate current	115 mA	ClassC; Telephony; PlateModulation
Maximum grid current	50 mA	ClassC; Telephony; PlateModulation
Maximum plate dissipation	40 W	ClassC; Telephony; PlateModulation
Carrier power output	105 W	ClassC; Telephony; PlateModulation; Va=1250V
Peak power output	420 W	ClassC; Telephony; PlateModulation; Va=1250V
Maximum frequency at maximum ratings	60 MHz	Published operating note



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon Amateur

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

1938 RAYTHEON AMATEUR

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	7.5 V	Published nominal value
Heater or filament current	3.75 A	Published nominal value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	62.5 W	Published maximum or highest stated rating
RF power output	135 W	ClassC; Telegraphy
Audio power output	250 W	ClassB; TwoTubes

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum operating frequency	60 MHz	Full ratings