



ELECTRONIC TUBE REFERENCE

TT20

Power - Tetrode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TETRODE-TETRODE

Dual common-cathode RF tetrode for UHF power amplification and multiplication service. Marconi data supports push-pull Class C operation into the several-hundred-megahertz region, including frequency-tripler use in professional communications transmitters.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	12.6 V / 650 mA	PARALLEL HEATER	6.3 V / 1.3 A
HEATING	Indirect	SERIES OPERATION	Capable
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
TRANSCONDUCTANCE	0.0025 S
MAXIMUM PLATE VOLTAGE	600 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM SCREEN DISSIPATION	1.5 W
MAXIMUM GRID DISSIPATION	0.5 W
Representative section row for two equivalent systems. Published maximum ratings and characteristics audited; remaining useful numerical data retained in parameter table.	

SECTION2 Tetrode

TRANSCONDUCTANCE	0.0025 S
MAXIMUM PLATE VOLTAGE	600 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM SCREEN DISSIPATION	1.5 W

Second physical tetrode system sharing the common cathode.

The TT20 is a dual tetrode with two systems around a common cathode, designed for UHF amplifier service up to about 600 MHz.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1955 Marconi

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

1955 MARCONI

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency. At frequencies above	150 MHz	Frequency. At frequencies above 150 Mc/s, with only ZDIAT-1' fl IB1M7AX
the anode voltage: e.g. $V_a \Rightarrow$ [1]	500 MHz	the anode voltage: e.g. $V_a \Rightarrow 500$ V at $f=200$ Mc/s and
the anode voltage: e.g. $V_a \Rightarrow$ [2]	200 MHz	the anode voltage: e.g. $V_a \Rightarrow 500$ V at $f=200$ Mc/s and
$V_{a==}$ [1]	300 MHz	$V_{a==} 300$ V at $f=430$ Mc/s. When the frequency
$V_{a==}$ [2]	430 MHz	$V_{a==} 300$ V at $f=430$ Mc/s. When the frequency
(	1 W	(1) RFPOWER AMPLIFIER - CLASS C
$v' \setminus$; (	3	$v' \setminus$; (3) FREQUENCY TREBLER
(	2 W	(2) RF POWER AMPLIFIER - CLASS C
Anode current for each section plotted against anode voltage for screen-grid voltage of	250 V	Anode current for each section plotted against anode voltage for screen-grid voltage of 250v.
Anode current for each section plotted against anode voltage with screen-grid voltage of	200 V	Anode current for each section plotted against anode voltage with screen-grid voltage of 200v.
Published value [1]	3001	3001 30 moSNNREN =L TTT natural cooling)
Published value [2]	30	3001 30 moSNNREN =L TTT natural cooling)
Frequency characteristic for "Class C" push-pull telegraphy showing anode efficiency and output power with $V_{,==}$	400 W	Frequency characteristic for "Class C" push-pull telegraphy showing anode efficiency and output power with $V_{,==} 400$ v.
Heater voltage series	12.6 V	Published series heater connection.
Heater current series	650 mA	Published series heater current.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage parallel	6.3 V	Published parallel heater connection.
Heater current parallel	1.3 A	Published parallel heater current.

TUBE TINKER

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