

ELECTRONIC TUBE REFERENCE

HT311

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

High-frequency triode for RF amplification and related high-frequency electronic service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	12.6 V / 800 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.01 S
MAXIMUM PLATE VOLTAGE	1000 V
MAXIMUM PLATE DISSIPATION	80 W
MAXIMUM GRID DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	125 mA
Published ratings and characteristics promoted where clearly stated. RFT HT311 is an indirectly heated, forced-air-cooled metal-ceramic microwave triode designed for amplification, frequency multiplication and oscillation to approximately 3.75 GHz. Maximum operating anode voltage is 1,000 V, plate dissipation 80 W, grid dissipation 2 W, and cathode current 125 mA. The 2,000 V cold-anode rating is not a continuous operating limit. Heater voltage is nominally 12.6 V at 0.8 A, with reduced voltage recommended above 400 MHz; 12.1 V is specified for 400–1,000 MHz continuous-wave operation. A minimum cooling airflow of 60 L/min is specified at maximum dissipation under the stated inlet-temperature conditions.	

A triode intended for amplification, oscillation, measurement, or microwave-frequency service, with source-published heater and electrical characteristics.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1953 RFT Rundfunk Technik

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

1953 RFT RUNDFUNK TECHNIK

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequenzen von etwa	3.75 GHz	Frequenzen von etwa 3,75 GHz
Bei Frequenzen oberhalb	400 MHz	Bei Frequenzen oberhalb 400 MHz

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
I ₀	800 mA	I ₀ 0,8 A V _j N
PublishedValue	1000 MHz	. . 1000 MHz 12,1 V
U,	400 V	U, 400 V
s	10 mA	s 10 mA/V
f 3,3	3.3 GHz	f 3,3 3,3 GHz U _a mMaX, 1000 V
U _a 500	800 V	U _a 500 800 V U _a mod maxX. ; <00 V
1 100	100 mA	1 100 100 mA (100% moduliert)
—U _g 6	15 V	—U _g 6 15 V
'U _g max	150 V	'U _g max. 150 V
I	8 mA	I ₈ mA
+U _{gs} maX,	30 V	+U _{gs} maX, 30 V
_U _{gs} maxX	400 V	_U _{gs} maxX. 400 V
Pou'l	2 W	Pou'l: 2 W
Pa maxX	80 W	Pa maxX. 80 W
I _k maxX	125 mA	I _k maxX. 125 mA
Cgk	10 pF	Cgk 10 pF 50 mA