

ELECTRONIC TUBE REFERENCE

DC70

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

Directly heated subminiature UHF oscillator triode for compact high-frequency signal generation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	1.25 V / 200 mA	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	4000 Ω
TRANSCONDUCTANCE	0.0034 S
AMPLIFICATION FACTOR	14
MAXIMUM PLATE VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	2.4 W
MAXIMUM CATHODE CURRENT	20 mA
Promoted from clearly identified published ratings/characteristics; additional operating points, capacitances, rectifier conditions, and application-specific values are retained in TUBE_SECTION_PARAMETER.	

The Mullard DC70 is a directly heated subminiature UHF triode intended mainly as a battery-operated oscillator around 500 MHz.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Mullard

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

1963 MULLARD

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Voltage	1.25 V	DCOnly
Filament Current	200 mA	DCOnly
Plate Voltage	150 V	—
Plate Current	14.5 mA	—
Transconductance	3750 μ S	—
Plate Resistance	8300 ohm	—
Amplification Factor	31 ratio	—
Grid-Plate Capacitance	1.5 pF	Shielded
Input Capacitance	1.3 pF	Shielded
Output Capacitance	1.9 pF	Shielded

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Intended Oscillator Frequency	500 MHz	Approximate



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V1

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1

Section 1 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.4 pF	Section1
Grid-to-filament capacitance	1.3 pF	Section1
Plate-to-filament capacitance	1.9 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	UHF
Plate current	12 mA	UHF
Control-grid voltage	-4.5 V	UHF
Oscillator frequency	500 MHz	Oscillator
Oscillator plate voltage	150 V	Oscillator
Oscillator cathode current	20 mA	Oscillator
Oscillator output power	450 mW	Oscillator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	3400 μ S	Section1
Amplification factor	14	Section1
Plate resistance	4000 Ω	Section1
Expected intermittent operating life approximately	200 h	SpecifiedOscillatorOperation



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips 0-D

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

1999 PHILIPS 0-D

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
at	500 Mc/s	Published datasheet condition
at 500 Mc/s (A	60 cm	Published datasheet condition
at 500 Mc/s (A = 60 cm) is about	450 mW	Published datasheet condition
The filament voltage of the DC 70 is	1.25 V	Published datasheet condition
a current of	200 mA	Published datasheet condition
mutual conductance is high (	3.4 mA	Published datasheet condition
current of	12 mA	Published datasheet condition
Filament voltage. V; , -	1.25 V	Published datasheet condition
Filament current. J; = 0	200 mA	Published datasheet condition
Anode to grid C,,	1.4 pF	Published datasheet condition
Grid to filament C,	1.3 pF	Published datasheet condition
Anode to filament C,	1.9 pF	Published datasheet condition
Note: Direct soldered connections to the leads of the tube must be at least	5 mm	Published datasheet condition
from the seal, and any bending of the tube leads must be at least	1.5 mm	Published datasheet condition
Anode voltage V_e	150 V	Published datasheet condition
Grid voltage . V_o ---	45 V	Published datasheet condition
Anode current I_a	12 mA	Published datasheet condition
Mutual conductance . μ	34 mA	Published datasheet condition
Anode voltage V,	150 V	Published datasheet condition
Cathode current I_c ,	20 mA	Published datasheet condition
Output power W, --- 0	45 W	Published datasheet condition

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage V, –	150 V	Published datasheet condition
Anode dissipation W, W,	24 W	Published datasheet condition
Cathode current I, –	20 mA	Published datasheet condition
Grid current I,	5 mA	Published datasheet condition
Filament voltage. V	1.35 V	Published datasheet condition